VERITAS™

VERITAS NetBackup™ 5.0

User's Guide

for Microsoft Windows

N102628

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Revision History for NetBackup 5.0

The following table summarizes the revisions made to this document for NetBackup release 5.0. See the release notes for more detailed information.

Release	Date	Description
NetBackup 5.0	December 2003	Original version for this release.

Contents

Revision History for NetBackup 5.0 iii

Preface xi

What Is In This Guide? xi

Getting Help xi

NetBackup Manuals xiii

Glossary xiv

Accessibility Features xiv

Conventions xv

Chapter 1. Introduction 1

Backup and Archive Operations 2

User-Directed Backups and Archives 2

Server-Directed Backups and Archives 2

Full Backup 2

Cumulative-Incremental Backup 3

Differential-Incremental Backup 3

True Image Backup 3

Restore Operations 4

File Permissions and Open Files 4

Access Control Lists 4

Server-Directed Restores 4

User-Directed Restores 4

Restoring from Backup Exec Images 5

Redirected Restore to a Different Client 5
Restores from True Image Backups 5
View Status 6
File Permissions Required By NetBackup 6

Chapter 2. User-Directed Operations 9
Starting the Backup, Archive, and Restore Interface 9
Toolbar 9
Helpful Hints 10
Performing Backups and Archives 10
Backing Up a File Through Windows Explorer 10
Backing Up a File Using NetBackup Bin 11
Backing Up a File Through the Backup, Archive, and Restore Interface 12
Backing Up Shared Folders 16
Performing Restores 16
View the Status of a User-Directed Operation 21
Advanced Restore Procedures 22
Selecting Specific Backup Dates to Restore 22
Searching for Files to Restore 22
Restoring an Earlier Version of a Folder or File 23
Restoring a True Image of a Directory 24
Restoring from Backup Exec Images 27
Redirecting Files to a Different Path 28
Restoring Everything to a Different Path 29
Restoring Individual Items to Different Paths 30
Restoring Using a Temporary Filename 32
Restoring from a Disk-Image Backup 33
Restoring to the Same Location 34
Restoring to a Different Location 35
Proxy Restore 38

Chapter 3. Reference 41
NetBackup Icons 41
Menus 41
File Menu 42
Edit Menu 44
View Menu 45
Actions Menu 47
Window Menu 51
Help Menu 52
Windows 53
NetBackup Window Icons 53
Backup, Archive, and Restore Window 55
NetBackup Backup Window 56
Buttons 57
Panes 57
NetBackup Restore Window 58
Buttons 59
Panes 59
NetBackup History Pane 60
Dialog Boxes 62
NetBackup Dialog Box 62
General Tab 62
Exclude List Tab 63
Include List Tab 63
Backups Tab 64
Network Tab 65
Troubleshooting Tab 65
Specify NetBackup Machines and Policy Type Dialog Box 65
Servers Tab 66
Clients Tab and Source Clients/Policy Type Tab 68

View Status Dialog Box 70
Preview List Dialog Box 72
Toolbar Options Dialog Box 74
Backup Policy and Schedule Dialog Box 74
Backups Tab 75
Search Backups Dialog Box 76
Specify Backup Options Dialog Box 78
Restore Marked Files Dialog Box 79
NetBackup Client Job Tracker Dialog Box 81

Appendix A. System Administrators 85

Free Browse 85
Restore without Access-Control Attributes 87
Redirecting a Restore to a Different Client 88
Preventing Server-Directed Restores 93
Specify NetBackup Machines and Policy Type Dialog Box for System Administrators 93
Servers Tab 93
Source Clients/Policy Type Tab 94
Destination Clients Tab 96
NetBackup Client Properties Dialog Box 97
General Tab 98
Exclude List Tab 100
Include List Tab 102
Backups Tab 104
Network Tab 104
Troubleshooting Tab 105
Syntax Rules for Exclude and Include Lists 107
Syntax Rules 107
Example of an Exclude List 109
User-Directed Archive Operations (NTFS5 and later) 109

Mount Points 109
Single Instance Store (SIS) 110
Windows Open File Backup 110

Index 111

Preface

This guide describes how to use the NetBackup Backup, Archive, and Restore interface to back up and restore files and folders that reside on Microsoft Windows NT, Windows 2000, Windows XP, and Windows Server 2003 systems.

This guide is written for the end user and for the system administrator.

What Is In This Guide?

This guide is organized to help you find the information you need in the chapters and appendices described below:

- Chapter 1, "Introduction," provides an overview of the NetBackup Backup, Archive, and Restore interface, describes how the end user operates the Backup, Archive, and Restore interface, and describes technical terms and concepts.
- Chapter 2, "User-Directed Operations," explains how to use the Backup, Archive, and Restore interface to perform backup, archive, and restore operations.
- Chapter 3, "Reference," describes the various windows, screens, and menus associated with the Backup, Archive, and Restore interface.
- Appendix A, "System Administrators," contains information about the Backup, Archive, and Restore interface that is important to the NetBackup administrator.

Getting Help

Use the VERITAS Technical support web site to get help for NetBackup if you have questions.

Accessing the VERITAS Technical Support Web Site

The VERITAS Technical Support Web site allows you to do any of the following:

- obtain updated information about NetBackup, including system requirements, supported platforms, and supported peripherals

- contact the VERITAS Technical Support staff and post questions to them
- get the latest patches, upgrades, and utilities
- view the NetBackup Frequently Asked Questions (FAQ) page
- search the knowledge base for answers to technical support questions
- receive automatic notice of product updates
- find out about NetBackup training
- read current white papers related to NetBackup

The address for the VERITAS Technical Support Web site follows:

http://support.veritas.com

Using VERITAS Telephone and E-mail Support

Telephone support for NetBackup is only available with a valid support contract. To contact VERITAS for technical support, dial the appropriate phone number listed on the Technical Support Guide included in the product box and have your product license information ready for quick navigation to the proper support group.

▼ **To locate the telephone support directory on the VERITAS web site**

1. Open http://support.veritas.com in your web browser.
2. Click the **Phone Support** icon. A page that contains VERITAS support numbers from around the world appears.

▼ **To contact support using E-mail on the VERITAS web site**

1. Open http://support.veritas.com in your web browser.
2. Click the **E-mail Support** icon. A brief electronic form will appear and prompt you to:
   - Select a language of your preference
   - Select a product and a platform
   - Associate your message to an existing technical support case
   - Provide additional contact and product information, and your message
3. Click **Send Message**.

NetBackup Manuals

The following documents provided related information:

- *VERITAS NetBackup Release Notes for UNIX and Windows*

  Provides important information about NetBackup on UNIX- and Windows-based servers, such as the platforms and operating systems that are supported and operating notes that may not be in the NetBackup manuals or the online help.

- *VERITAS NetBackup Installation Guide for UNIX*

  Explains how to install NetBackup software on UNIX-based platforms.

- *VERITAS NetBackup Installation Guide for Windows*

  Explains how to install NetBackup software on Windows-based platforms. Also explains how to install PC client software, which includes UNIX systems and Mac OS 10.

If you have a UNIX server, refer to these documents:

- *VERITAS NetBackup System Administrator's Guide for UNIX, Volume I*

  Explains how to configure and manage NetBackup on a UNIX server, including managing storage units, backup policies, catalogs and host properties.

- *VERITAS NetBackup System Administrator's Guide for UNIX, Volume II*

  Explains additional NetBackup features such as notify scripts, enhanced authorization and authentication, and role-based security. The guide also discusses using NetBackup with AFS, Intelligent Disaster Recovery (IDR), and the BE Tape Reader.

- *VERITAS NetBackup Media Manager System Administrator's Guide for UNIX*

  Explains how to configure and manage the storage devices and media on UNIX servers running NetBackup. Media Manager is part of NetBackup.

- *VERITAS NetBackup Troubleshooting Guide for UNIX and Windows*

  Provides troubleshooting information for UNIX- and Windows-based NetBackup products, including Media Manager.

- *VERITAS NetBackup Commands for UNIX*

  Describes NetBackup and Media Manager commands and processes that can be run from a UNIX command line.

If you have a Windows server, refer to these documents:

- *VERITAS NetBackup System Administrator's Guide for Windows, Volume I*

  Explains how to configure and manage NetBackup on a Windows server, including managing storage units, backup policies, catalogs and host properties.

- *VERITAS NetBackup System Administrator's Guide for Windows, Volume II*

  Explains additional NetBackup features such as notify scripts, enhanced authorization and authentication, and role-based security. The guide also discusses using NetBackup with AFS, Intelligent Disaster Recovery (IDR), and the BE Tape Reader.

- *VERITAS NetBackup Media Manager System Administrator's Guide for Windows*

  Explains how to configure and manage the storage devices and media on Windows servers running NetBackup. Media Manager is part of NetBackup.

- *VERITAS NetBackup Troubleshooting Guide for UNIX and Windows*

  Provides troubleshooting information for UNIX- and Windows-based NetBackup, including Media Manager.

- *VERITAS NetBackup Commands for Windows*

  Describes NetBackup commands and processes that can be executed from a Windows command prompt.

Glossary

If you encounter unfamiliar terminology, consult the NetBackup online glossary. The glossary contains terms and definitions for NetBackup and all additional NetBackup options and agents.

The NetBackup online glossary is included in the NetBackup help file.

▼ To access the NetBackup online glossary

1. In the Backup, Archive, and Restore client interface), click **Help** > **Contents**.
2. Click **Glossary of NetBackup Terms**, then **Open**.
3. Click **Glossary of NetBackup Terms**, then **Display**.

The glossary displays in a help window. Use the scroll function to navigate through the glossary.

Accessibility Features

NetBackup contains features that make the user interface easier to use by people who are visually impaired and by people who have limited dexterity. Accessibility features include:

- Support for assistive technologies such as screen readers and voice input (Windows servers only)
- Support for keyboard (mouseless) navigation using accelerator keys and mnemonic keys

For more information, see the *NetBackup System Administrator's Guide, Volume I*.

Conventions

The following section explains typographical and other conventions used in this guide.

Product-Specific Conventions

The following term is used in the NetBackup documentation to increase readability while maintaining technical accuracy.

- Microsoft Windows, Windows

  Terms used to describe a specific product or operating system developed by Microsoft, Inc. Some examples you may encounter in NetBackup documentation are, Windows servers, Windows 2000, Windows Server 2003, Windows clients, Windows platforms, or Windows GUI.

  When Windows or Windows servers is used in the documentation, it refers to all of the currently supported Windows operating systems. When a specific Windows product is identified in the documentation, only that particular product is valid in that instance.

  For a complete list of Windows operating systems and platforms that NetBackup supports, refer to the *NetBackup Release Notes for UNIX and Windows* or go to the VERITAS support web site at `http://www.support.veritas.com`.

Typographical Conventions

Here are the typographical conventions used throughout the manuals:

Conventions

Convention	Description
GUI Font	Used to depict graphical user interface (GUI) objects, such as fields, listboxes, menu commands, and so on. For example: Enter your password in the **Password** field.

Conventions (continued)

Convention	Description
Italics	Used for placeholder text, book titles, new terms, or emphasis. Replace placeholder text with your specific text. For example: Replace *filename* with the name of your file. Do *not* use file names that contain spaces. This font is also used to highlight NetBackup server-specific or operating system-specific differences. For example: *This step is only applicable for NetBackup Enterprise Server.*
`Code`	Used to show what commands you need to type, to identify pathnames where files are located, and to distinguish system or application text that is displayed to you or that is part of a code example.
Key+Key	Used to show that you must hold down the first key while pressing the second key. For example: Ctrl+S means hold down the Ctrl key while you press S.

You should use the appropriate conventions for your platform. For example, when specifying a path, use backslashes on Microsoft Windows and slashes on UNIX. Significant differences between the platforms are noted in the text.

Tips, notes, and cautions are used to emphasize information. The following samples describe when each is used.

Tip Used for nice-to-know information, like a shortcut.

Note Used for important information that you should know, but that shouldn't cause any damage to your data or your system if you choose to ignore it.

Caution Used for information that will prevent a problem. Ignore a caution at your own risk.

Command Usage

The following conventions are frequently used in the synopsis of command usage.

brackets [ ]

The enclosed command line component is optional.

Vertical bar or pipe (|)

Separates optional arguments from which the user can choose. For example, when a command has the following format:

`command arg1|arg2`

In this example, the user can use either the *arg1* or *arg2* variable.

Navigating Multiple Menu Levels

When navigating multiple menu levels, a greater-than sign (>) is used to indicate a continued action.

The following example shows how the > is used to condense a series of menu selections into one step:

❖ Select **Start** > **Programs** > **VERITAS NetBackup** > **NetBackup Administration Console**.

The corresponding actions could be described in more steps as follows:

1. Click **Start** in the task bar.
2. Move your cursor to **Programs**.
3. Move your cursor to the right and highlight **VERITAS NetBackup**.
4. Move your cursor to the right. First highlight and then click **NetBackup Administration Console**.

Introduction 1

NetBackup lets you back up, archive, and restore files, directories, or volumes that reside on your client system. NetBackup uses a client-server model for backup and restore operations. The system that needs the backup or restore is the NetBackup client, and the system that manages the storage and retrieval of the backup data is the NetBackup master server.

The NetBackup Backup, Archive, and Restore program is your interface to the NetBackup client software on your system, which requests backup, archive, and restore services from the NetBackup master server. When you use the Backup, Archive, and Restore interface to request an operation, the process runs under the control of the NetBackup master server.

During installation, the Backup, Archive, and Restore interface is configured to work with the NetBackup client software that runs on your system. .

The NetBackup Backup, Archive, and Restore interface is supported on Microsoft Windows NT, Windows 2000, Windows XP, and Windows Server 2003 systems.

Backup and Archive Operations

A backup saves copies of selected files and folders from a NetBackup client to a storage device on a NetBackup master server or a NetBackup media server.

An archive saves copies of selected files and folders from a NetBackup client to a storage device on a NetBackup master server or NetBackup media server, then deletes the original files from the NetBackup client.

User-Directed Backups and Archives

You can perform a user-directed backup during the time period scheduled by the NetBackup system administrator. NetBackup allows you to select a combination of files, folders with files, or entire drives to back up.

Files can be backed up through the Backup, Archive, and Restore interface or, if NetBackup Explorer Extensions are installed and enabled, through Windows Explorer.

Server-Directed Backups and Archives

The NetBackup administrator can schedule full backups and incremental backups to occur automatically and unattended, under the control of the NetBackup master server. Full, incremental, and true image backups can only be performed by the NetBackup master server. When properly scheduled, the server-directed backups will meet most of your backup requirements.

Note NetBackup includes open file backups functionality, which is used to back up open and active files. If the open file backups functionality is disabled, be sure to shut down all applications on the NetBackup client before initiating a server directed backup (that is, before the scheduled backup window for your system begins). Windows open file backups functionality is enabled and configured by your system administrator.

Full Backup

When the NetBackup master server is configured to perform a full backup, NetBackup backs up all files in a specified folder or volume to a storage unit. The archive bit is cleared as each file is backed up. If the full backup fails, NetBackup will attempt another full backup at the same time each day until successfully completed. A successfully completed backup will include all files.

Cumulative-Incremental Backup

When the NetBackup master server is configured to perform a cumulative-incremental backup, NetBackup backs up all files that have changed since the last successful full backup.

Cumulative-incremental backups can be configured to use either the datetime stamp or the archive bit. If the datetime stamp is used, the cumulative-incremental backup includes all files with a datetime stamp that is more recent than the last full backup. If the archive bit is used, the cumulative-incremental backup includes all files that have their archive bit set. Archive bits are not cleared on cumulative-incrementals. Refer to "General Tab" on page 62 for more details on performing incremental backups with archive bits.

Differential-Incremental Backup

When the NetBackup master server is configured to perform a differential-incremental backup, NetBackup backs up all files that have changed since the last successful backup.

Differential-incremental backups can be configured to use either the datetime stamp or the archive bit. If the datetime stamp is used, the differential-incremental backup includes all files with datetime stamps that are more recent than the last full or incremental backup. If the archive bit is used, the differential-incremental backup includes all files that have their archive bit set. Archive bits are cleared on differential-incrementals if all files are successfully backed up. Refer to "General Tab" on page 62 for more details on performing incremental backups with archive bits.

True Image Backup

A true image backup takes place when the **Collect true image restore information** attribute has been set on the NetBackup master server. When this attribute is set, NetBackup collects additional information necessary to restore a folder to exactly what it was at the time of the full backup or incremental backup.

Only those backups performed with this attribute set can be used for the true image restore. For complete details, refer to the *NetBackup System Administrator's Guide, Volume I*.

Restore Operations

A restore reads backups from the storage device on the NetBackup master server or the NetBackup media server and restores them to the NetBackup client. NetBackup allows you to select a combination of files, folders with files, or entire drives to restore.

File Permissions and Open Files

File permissions require write permission on the destination folder in order to restore a file. A file will not be restored when a file with the identical name is open on the NetBackup client.

Access Control Lists

If the access control list to a file on a Windows NT, Windows 2000, Windows XP, or Windows Server 2003 system has changed since the file was backed up, it will be restored to what it was at the time of the backup.

A file will be restored by NetBackup as follows:

- A user that has been granted access to the file since the backup will *not* have access to the file after the restore.
- A user that has had access to the file removed since the backup will again have access after the file is restored.

Server-Directed Restores

The administrator on the NetBackup master server can direct restores to any NetBackup client (regardless of which NetBackup client the files came from). Refer to "Redirecting a Restore to a Different Client" on page 88 for details.

A client can prohibit server-directed restores by clearing the **Allow Server-Directed Restores** option in the **General** tab. This option should only be cleared by the system administrator. Refer to "General Tab" on page 98 for more information.

User-Directed Restores

A user can start a restore operation at any time. Restored folders and drives include all files that were backed up or archived during a range of backups. NetBackup is also able to restore from Backup Exec images, redirect a restore to a different client, and perform true image restores.

Restoring from Backup Exec Images

NetBackup can read and restore Backup Exec images written by Backup Exec 7.0 or later. However, the Backup Exec images must first be imported into NetBackup by your system administrator. For information about restoring Backup Exec images, see "Restoring from Backup Exec Images" on page 27.

Redirected Restore to a Different Client

With the necessary permissions and configuration, users can browse the NetBackup database for files backed up by another NetBackup client and restore files to their own computer.

System administrators can direct restores to the client that originally backed up the files or to different client. This type of restore must be performed on the master server and is called a server-directed restore.

Refer to "Redirecting a Restore to a Different Client" on page 88 for details on using the Backup, Archive, and Restore interface on the NetBackup server for redirected restores to different clients.

Restores from True Image Backups

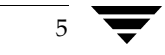
True image backups can be restored only on server-directed backups and archives in which the **Collect true image restore information** attribute has been set. Refer to the *NetBackup System Administrator's Guide, Volume I* for details.

A true image restore of a folder, by default, restores the folder so its contents are exactly what they were at the time of the most recent server-directed full backup or incremental backup. Files deleted prior to the specified backup are not restored.

During a true image restore of a folder, NetBackup determines which files belong in the folder and then reconstructs it by using the most recent backup of these files.

NetBackup does not allow a true image restore that is based on the time of a user operation. However, NetBackup does use the backups from a user-directed operation if they are more recent than the latest server-directed full backup or incremental backup.

A true image restore is the best choice if, for example, you have recently cleaned up a folder by deleting unwanted files and now want to restore the latest version without having to repeat your cleanup. It is also possible to restore the true image of an earlier version of a folder.



View Status

You can view, print, and delete status reports from within the View Status dialog box. Refer to "View Status Dialog Box" on page 70 for more information.

File Permissions Required By NetBackup

You need backup privileges to back up or archive a file. Without backup privileges, you must have read access to a file in order to back up the file and read and delete access to a file in order to archive the file (since the archive operation removes the file from the disk).

Listing and restoring files and directories require the following permissions:

- To list or restore files in a directory owned by someone else, you must have restore privileges. Without restore privileges, you can only restore from a user-directed backup you have performed (unless Free Browse is turned on). (Refer to "Free Browse" on page 85 for more details.)
- To restore a file to its original location, you must have write access to the file (if the file exists), or to the directory (if the file does not exist).

The following table shows how NetBackup restores files in various situations (for example, if a copy of the file or directory already exists).

File Permissions

Type of Restore Attempted	Results
Restore a file that already exists and overwrite the existing file.	If you have restore privileges, NetBackup restores the file and sets file ownership to the same owner as the backup image. If you do not have restore privileges, NetBackup restores the file only if you have write access to it. In a case where the file is read only, but you have write access to the parent directory, NetBackup removes the file and restores the backup image with the original owner as the owner.
Restore a file that already exists and *not* overwrite the existing file.	Whether you have restore privileges or not, NetBackup does not restore the file and places a message in the progress log.
Restore a file that doesn't exist.	Whether you have restore privileges or not, NetBackup restores the file and sets file ownership to the owner that originally owned the file.

File Permissions

Type of Restore Attempted	Results
Restore a file when a directory exists with the same name as the file.	Whether you have restore privileges or not, NetBackup places a message in the log file indicating that the directory will be replaced with the file after the next system reboot. After the system boot, the directory is not replaced and the file is restored with a temporary filename in the parent directory of the directory. This occurs only when overwrite existing files is enabled. The log file will indicate the name the file was given and to which directory it was restored.
Restore a directory when a file exists with the same name as the directory.	The directory will not be restored.
Restore a file in a directory that does not exist.	NetBackup creates the directory with the owner set to the account used to start the NetBackup client service. The file is then restored in the same manner as one that does not exist (see above).

User-Directed Operations 2

This section provides step-by-step instructions about using the Backup, Archive, and Restore interface to perform backups, archives and restores. For information on scheduled backups and other server-directed operations, see the *NetBackup System Administrator's Guide, Volume I*.

Starting the Backup, Archive, and Restore Interface

- Click the Windows **Start** menu, click **Programs** > **VERITAS NetBackup** > **Backup, Archive, and Restore.**

  If NetBackup Access Management is used to control access to your NetBackup environment, you may be required to enter a user name, password, and domain information.

  The Backup, Archive, and Restore interface displays.

For a description of the Backup, Archive, and Restore interface, including icons, menus, windows, and dialog boxes, see "Reference" on page 41.

Toolbar

For most operations, it is easiest to use the buttons on the toolbar. The horizontal toolbar on the Backup, Archive, and Restore interface opens windows to browse for backups or restores and to view the progress report of a NetBackup operation.

The NetBackup Backup window or the NetBackup Restore window has a vertical toolbar with buttons for frequently used menu commands. Clicking a button on a toolbar has the same effect as using the menu command. Any action initiated by the buttons on the vertical toolbar only pertains to the window it is associated with.

Helpful Hints

Marking Files and Folders

- To mark a file for backup or restore, select the checkbox to left of a file.
- To mark a folder for backup or restore, select the checkbox to the left of a folder. A check mark will appear in the box. A slash mark in the box indicates only some of the files or subfolders within that folder are marked.
- To mark all the files (and folders) that currently appear in the Contents of '*<folder>*' pane, click **Mark Displayed Files** from the **Edit** menu.

Unmarking Files and Folders

- To unmark a file, clear the checkbox to the left of the file.
- To unmark a folder, and all the files and subfolders marked within that folder, clear the checkbox to the left of the folder.
- To unmark all files and folders that currently appear in the Contents of '*<folder>*' pane, select **Unmark Displayed Files** on the **Edit** menu.
- To unmark all previously marked files and folders, select **Unmark All** on the **Edit** menu. You can also click the **Unmark All** button on the NetBackup Backup window or NetBackup Restore window toolbars.

Performing Backups and Archives

This section includes a tutorial which goes through a simple backup of the `Readme_Client.txt` file installed in the NetBackup folder.

You can back up a file either through the Windows Explorer, by using the NetBackup Bin feature, or through the Backup, Archive, and Restore interface.

Backing Up a File Through Windows Explorer

Note Explorer Extensions must be enabled in order to be able to back up files through Windows Explorer. To enable this feature, open the Backup, Archive, and Restore interface and on the **File** menu select **NetBackup Explorer Extensions**.

▼ **To back up a file through Windows Explorer**

1. Open Windows Explorer. (Click on the Windows **Start** menu, click **Programs** > **Accessories** > **Windows Explorer**.)
2. Locate the file (or folder) you wish to back up and right-click on it. For example:
   a. Open the `Program Files\VERITAS\NetBackup` folder.
   b. Find the `Readme_Client.txt` file and right-click on it.
3. Click **Backup Now**.

   To show the progress of the backup operation, select **Automatically Show Progress Log**.
4. To begin the backup operation, click **Yes**.

Backing Up a File Using NetBackup Bin

Note Explorer Extensions must be enabled in order to back up files using NetBackup Bin. To enable this feature, open the Backup, Archive, and Restore interface and on the **File** menu select **NetBackup Explorer Extensions**.

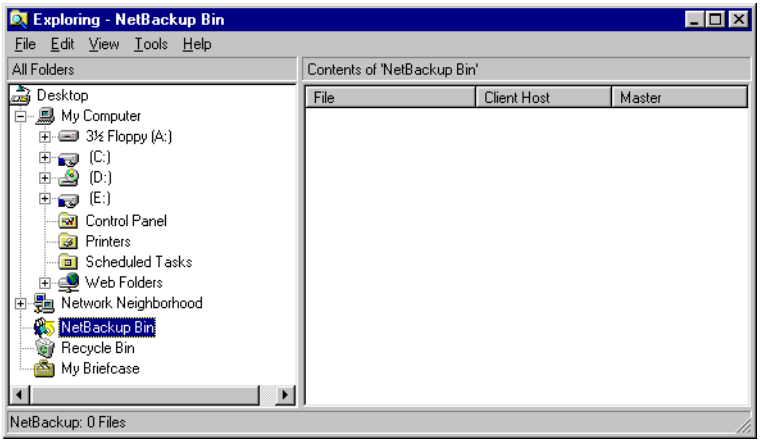
▼ **To back up a file using NetBackup Bin**

1. Open Windows Explorer. (Click on the Windows **Start** menu, click **Programs** > **Accessories > Windows Explorer**.)
2. Locate the file (or folder) you wish to back up. For example:
   a. Open the `Program Files\VERITAS\NetBackup` folder.
   b. Find the `Readme_Client.txt` file.
3. Drag the file to NetBackup Bin. You can do this by either:

   - Dragging the file to the NetBackup Bin icon on your desktop.

     or

- Dragging the file to the NetBackup Bin folder in Windows Explorer.



4. To view the files in the NetBackup Bin folder:
   - Double-click on the NetBackup Bin icon on your desktop.

     or

   - Right-click on the NetBackup Bin folder in Windows Explorer and click **Open**.
5. Right-click on NetBackup Bin icon, or on the NetBackup Bin folder in Windows Explorer, and click **Backup Now**.

   To show the progress of the backup operation, select **Automatically Show Progress Log**.
6. To begin the backup operation, click **Yes**.

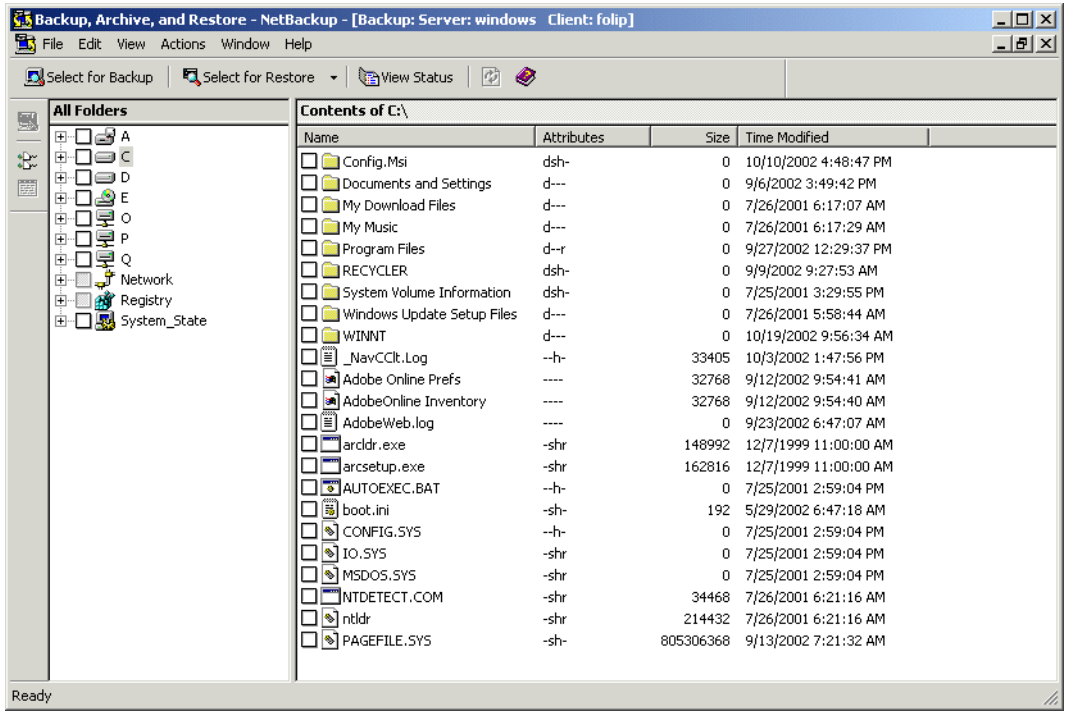
Backing Up a File Through the Backup, Archive, and Restore Interface

▼ To back up a file through Backup, Archive, and Restore

1. Start the Backup, Archive, and Restore interface as described in “Starting the Backup, Archive, and Restore Interface” on page 9.

   The Backup, Archive, and Restore interface displays.
2. On the **File** menu, choose **Select Files and Folders to Backup**.

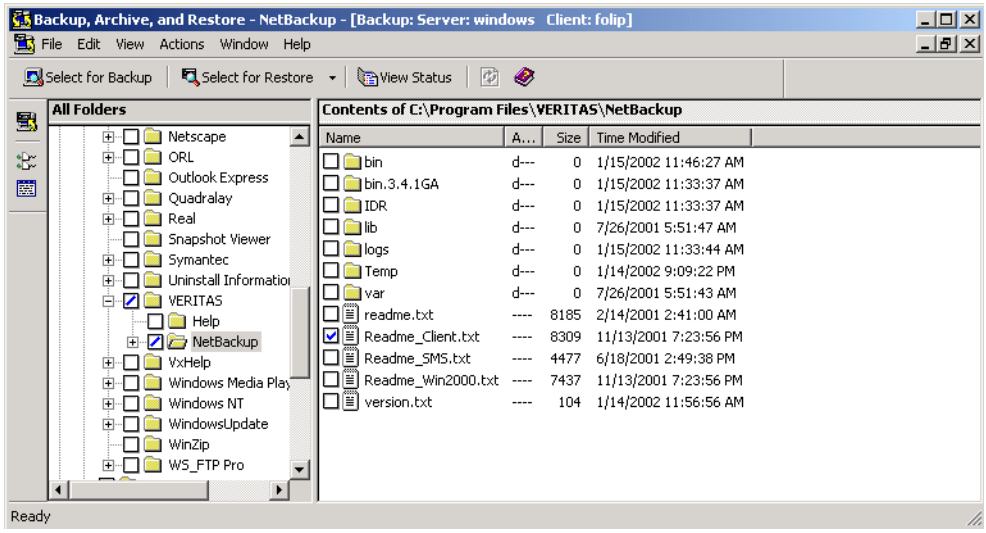
The NetBackup Backup window is displayed.


Backup, Archive, and Restore - NetBackup - [Backup: Server: windows Client: folip]
File Edit View Actions Window Help
Select for Backup
Select for Restore
View Status
All Folders
A
C
D
E
O
P
Q
Network
Registry
System_State
Contents of C:\
Name Attributes Size Time Modified
Config.Msi dsh- 0 10/10/2002 4:48:47 PM
Documents and Settings d--- 0 9/6/2002 3:49:42 PM
My Download Files d--- 0 7/26/2001 6:17:07 AM
My Music d--- 0 7/26/2001 6:17:29 AM
Program Files d--r 0 9/27/2002 12:29:37 PM
RECYCLER dsh- 0 9/9/2002 9:27:53 AM
System Volume Information dsh- 0 7/25/2001 3:29:55 PM
Windows Update Setup Files d--- 0 7/26/2001 5:58:44 AM
WINNT d--- 0 10/19/2002 9:56:34 AM
_NavCClt.Log --h- 33405 10/3/2002 1:47:56 PM
Adobe Online Prefs ---- 32768 9/12/2002 9:54:41 AM
AdobeOnline Inventory ---- 32768 9/12/2002 9:54:40 AM
AdobeWeb.log ---- 0 9/23/2002 6:47:07 AM
arcldr.exe -shr 148992 12/7/1999 11:00:00 AM
arcsetup.exe -shr 162816 12/7/1999 11:00:00 AM
AUTOEXEC.BAT --h- 0 7/25/2001 2:59:04 PM
boot.ini -sh- 192 5/29/2002 6:47:18 AM
CONFIG.SYS --h- 0 7/25/2001 2:59:04 PM
IO.SYS -shr 0 7/25/2001 2:59:04 PM
MSDOS.SYS -shr 0 7/25/2001 2:59:04 PM
NTDETECT.COM -shr 34468 7/26/2001 6:21:16 AM
ntldr -shr 214432 7/26/2001 6:21:16 AM
PAGEFILE.SYS -sh- 805306368 9/13/2002 7:21:32 AM
Ready

3. Mark a file to backup.

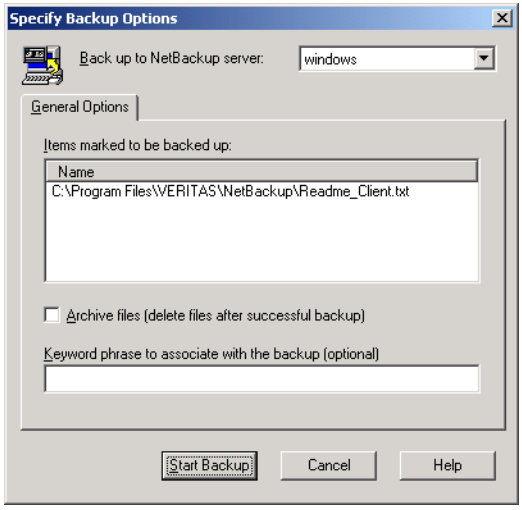
a. Open the `Program Files\VERITAS\NetBackup` folder.

b. Find the `Readme_Client.txt` file and select the checkbox to the left of the item.



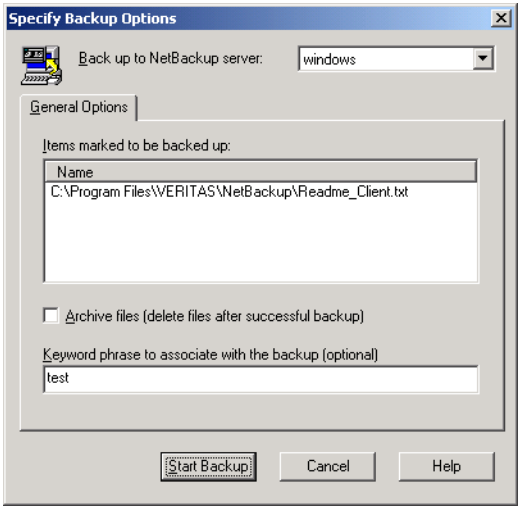
4. On the **Actions** menu, choose **Start Backup of Marked Files**.

The Specify Backup Options dialog box is displayed.



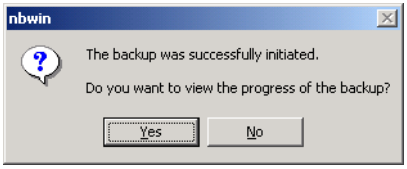
a. Review your selections in the **Name** list box.

b. If you wish to associate the backup with a keyword phrase, enter a keyword in the **Keyword phrase to associate with the backup (optional)** box. Later, you can search for this keyword if you wish to restore the items that were backed up. In this example **`test`** is used as the keyword.



c. Click **Start Backup**.

The backup request goes to the NetBackup master server. A NetBackup message displays, indicating that the backup was successfully started.



5. Click **Yes** on the NetBackup Message dialog box to open the View Status dialog box.

The View Status dialog box allows you to view the progress report of a NetBackup operation. For more information see “View the Status of a User-Directed Operation” on page 21.

Note The NetBackup operation may take a few minutes to complete. You can close the Backup, Archive, and Restore interface after starting a backup operation. NetBackup will continue the backup operation in the background.

Backing Up Shared Folders

For information on backing up shared folders, refer to the "Backup Network Drives" topic in the *NetBackup System Administrator's Guide, Volume I*.

Performing Restores

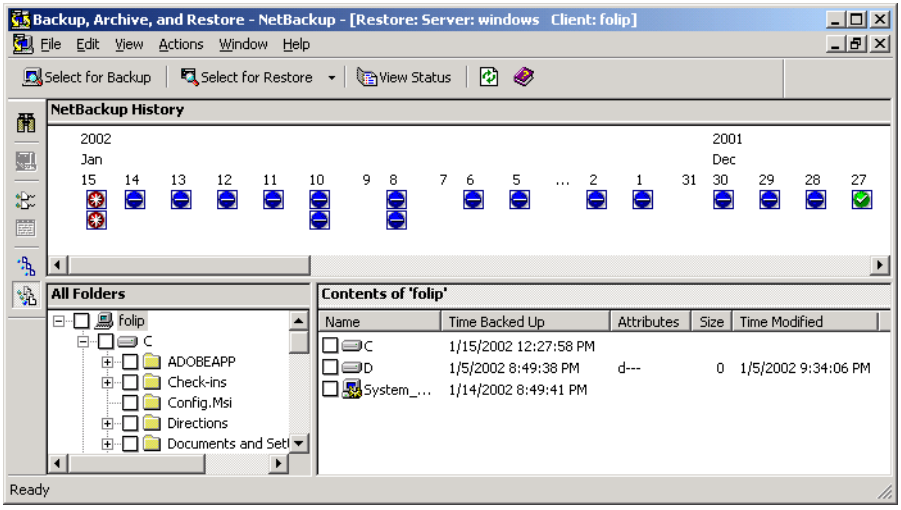
This section guides you through a simple restore of the `Readme_Client.txt` file backed up in "Performing Backups and Archives" on page 10 of this manual.

▼ To restore using Backup, Archive, and Restore

1. Start the Backup, Archive, and Restore interface as described in "Starting the Backup, Archive, and Restore Interface" on page 9.

2. On the **File** menu, click **Select Files and Folders to Restore > from Normal Backup**.

   The NetBackup Restore window displays.



   There may be a delay before lists display in the NetBackup Restore window. NetBackup has to obtain the file information from the catalogs on the NetBackup master server.

   If files or folders do not display in the NetBackup Restore window, it can be because of one of the following:

- **Perform Default Search** is not enabled. In this case, start a search manually by clicking **Search Backups** on the **Actions** menu. Or to display the files in a backup, click a backup image.
- The NetBackup server does not have any backups of files for your client. Ensure that the client is connecting to the correct server (see "Servers Tab" on page 66). Also, ensure that you are using the correct client name (see "Clients Tab and Source Clients/Policy Type Tab" on page 68). You can also refer to the title bar, which displays the names of the client and the server the client is connected to. If these settings are correct and you believe there are backups available, contact your system administrator.

3. Select a file to restore.

If you know the backup image (or the range of images) you can select the file from the NetBackup History pane without going through the Search Backups dialog box.

In this tutorial, we are going to use the Search Backups feature to restore the `Readme_Client.txt` file backed up in "Performing Backups and Archives" on page 10.

Tip Before initiating a search, collapse the tree in the All Folders pane as much as possible. NetBackup will expand the tree to the folders that match your search criteria.

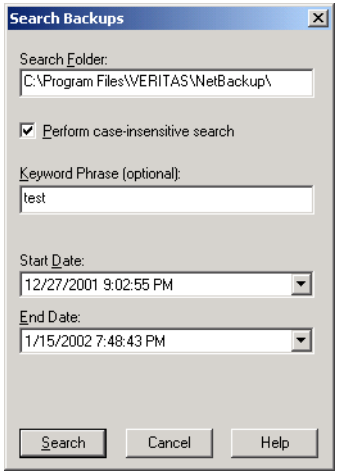
a. On the **Actions** menu, click **Search Backups**.

The Search Backups dialog box displays.

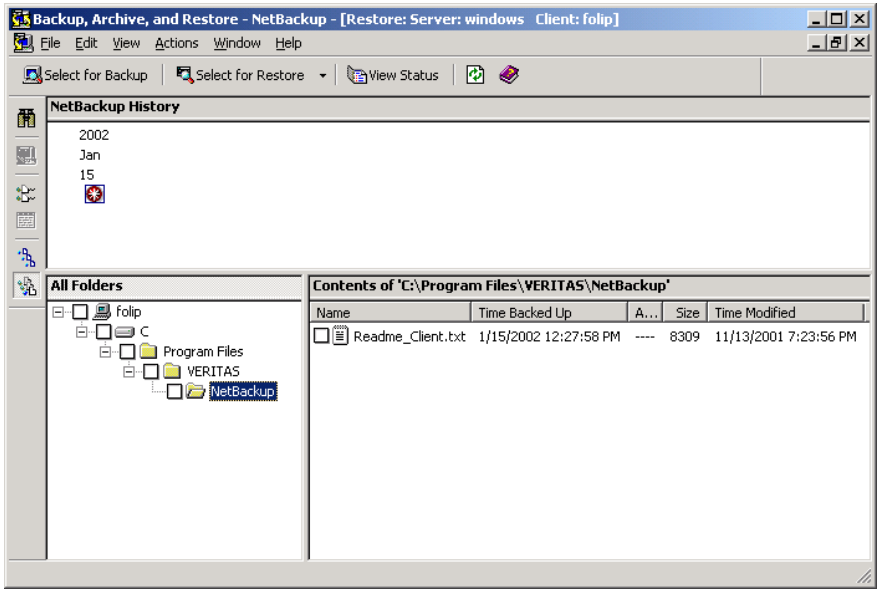
b. In the **Search Folder** box, type the path to the backed up file.

For this example the path is `C:\Program Files\VERITAS\NetBackup\`.

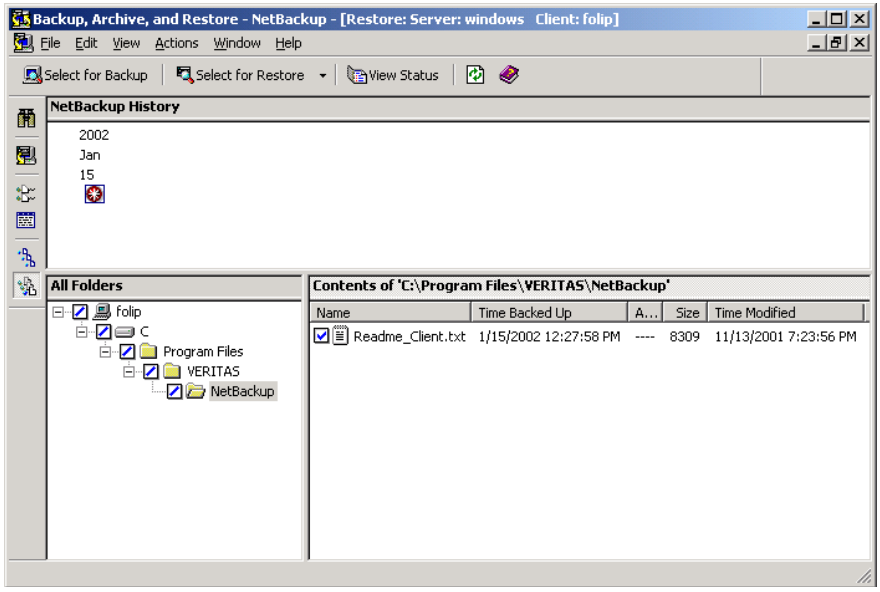
c. Type **`test`** in the **Keyword phrase (optional)** box.



d. Click **Search**. NetBackup will display the tree to the lowest levels of folders which contain files that were backed up.

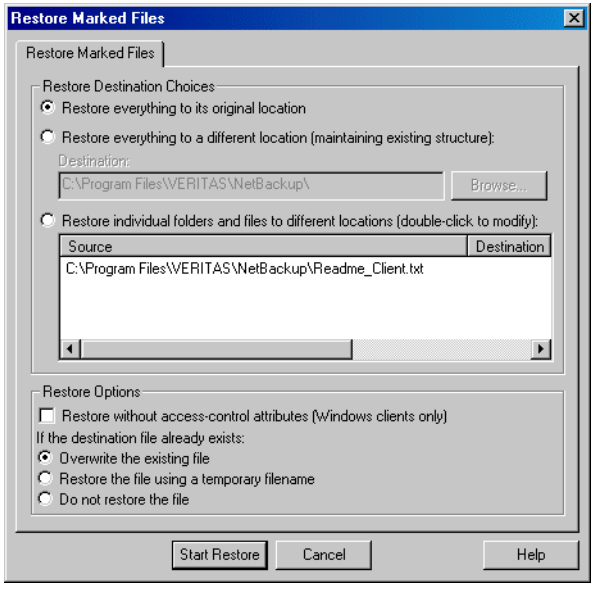


4. Select the checkbox to the left of the `Readme_Client.txt` file.



5. On the **Actions** menu, click **Start Restore of Marked Files**.

   The Restore Marked Files dialog box is displayed.



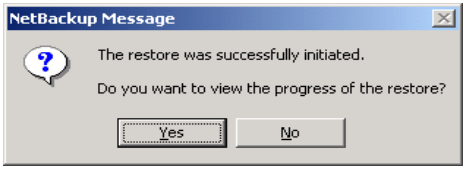
6. To restore the file without access control permissions, click **Restore without access-control attributes (Windows clients only)**.

   The **Restore without access-control attributes (Windows clients only)** option will be active only if you have system administration privileges and the NetBackup client and server software supports restore without access-control attributes.

7. Click **Overwrite the existing file**.

8. Click **Start Restore**.

   A NetBackup message displays, indicating that the restore was successfully started.



9. Click **Yes** on the NetBackup Message box to open the View Status dialog box.

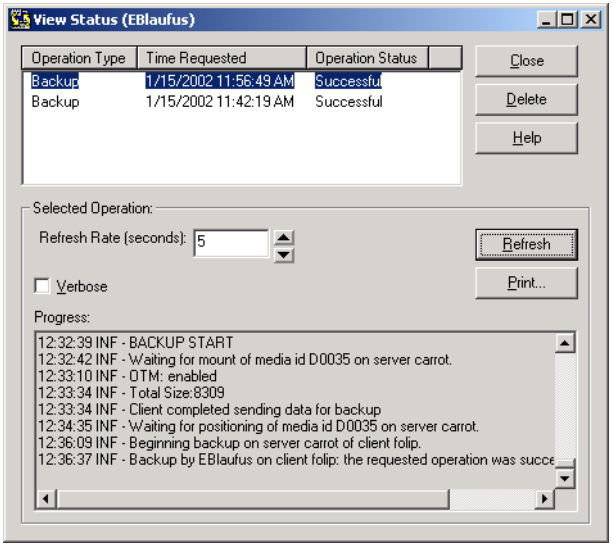
   The View Status dialog box allows you to view the progress report of a NetBackup operation. For more information see "View the Status of a User-Directed Operation" on page 21.

Note The NetBackup operation may take a few minutes to complete. After starting a restore operation, you can close the Backup, Archive, and Restore interface and perform other tasks on your computer. NetBackup will continue the restore operation in the background.

View the Status of a User-Directed Operation

▼ To view the status of user-directed operations

1. On the **File** menu, click **View Status**.



   The status of the operation displays under the Operation Status column.

2. Select the operation for which you want to check the progress.

3. Click **Refresh**.

   The lower pane will reflect the progress of the item selected in the top pane.

4. Select a refresh interval from the **Refresh Rate** box. The default setting is 0 seconds, which means the status will not be automatically refreshed.

5. By default the progress file is displayed in an abbreviated form. If you wish to view the entire contents of the progress file, select the **Verbose** option.

The NetBackup operation is finished when the Status changes to `Successful`. If NetBackup was unable to back up or restore all of the requested files, a status code appears a few lines before the end of the progress report. The *NetBackup Troubleshooting Guide for UNIX and Windows* list the meaning of the final status code.

Advanced Restore Procedures

The following sections give detailed explanations of how to perform different types of advanced restore procedures.

Selecting Specific Backup Dates to Restore

By default, the NetBackup Restore window shows the files and folders that were backed up from the time of the last full backup to the most recent backup. If the client belongs to more than one policy, the default display starts with the last full backup that occurred first. (A NetBackup *policy* defines the backup rules for a client or set of clients.) For example, assume that the client belongs to PolicyW1 and PolicyW2. Also assume that full backups occur for both of them: PolicyW1's most recent full backup occurred on Feb. 2 and PolicyW2's most recent full backup occurred on Feb. 10. The display shows files ranging from the time of the PolicyW1 full backup on Feb. 2.

The default range will satisfy the majority of your needs to restore files. There will be times, however, when you must restore a file that was not backed up during the default time period. For example, a file that was deleted prior to the last full backup does not appear in the default display. In this case, you must use the NetBackup History pane to select a backup that contains the file.

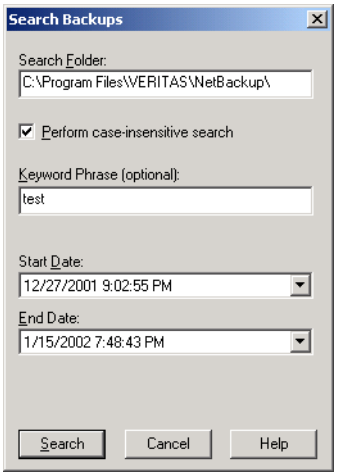
Searching for Files to Restore

▼ To search for files to restore

1. Open the NetBackup Restore window.
2. On the **View** menu, click **Show All Backups**. This will display all copies of files and folders from all of the backups. To display the most recent copy of the file or folder, choose **Show Most Recent Backup** from the **View** menu.
3. Select the images from the NetBackup History pane that you believe contain the files and folders you want to restore.
4. Narrow the search range as much as possible to speed up your search by doing the following:
   - Select a specific backup image in the NetBackup History pane.
   - To select a range of backup images, select the first one in the range and then, while holding the Shift key, select the last one in the range. In this case, NetBackup searches all of the backup images in the selected range. The range search will start after the second image is selected.

- Cancel previous selections by selecting another backup.

5. To open the Search Backups dialog box, click **Search Backups** on the **Actions** menu.



6. Type the search path that you want NetBackup to use in its search.

Note The number of files you can list during a search is limited by the amount of free memory you have on your computer. If you reach the limit, modify the date or file path parameters to narrow the scope of the search.

By default, the Search Backups dialog box shows the information for the folder that is currently selected in the All Folders pane of the NetBackup Restore window. See "Search Backups Dialog Box" on page 76 for more information.

7. Click **Search**.

When the search is complete, NetBackup updates the NetBackup Restore window.

Restoring an Earlier Version of a Folder or File

This procedure will restore all files that were backed up during the range of backup dates. This includes files that were deleted from your online folder after they were backed up. If you do not want to restore the deleted files, refer to "Restoring a True Image of a Directory" on page 24.

▼ **To restore an earlier versions of a folder or file**

1. Open a NetBackup Restore window.
2. Open the backup NetBackup History pane.

   If the NetBackup History pane is not open, click and drag the horizontal split bar down.
3. In the NetBackup History pane, select backup images for the dates of the backed up files or folders you want to restore.

   NetBackup will search the backup images, and display the contents of the backup images in the All Folders and Contents of '*<folder>*' panes.

   - To restore a version of a folder or file that existed prior to the last full backup, select only the backups that include the desired version of the folder or file. Continue with step 4.
   - To further narrow your search for a specific folder, file or keyword, go to step a.

   a. On the **Actions** menu, click **Search Backups**.

   b. Enter a filename or keyword.

   c. Click **Search**. When the search is complete, the NetBackup Restore window is updated.
4. Select the folder you want to restore in the All Folders pane of the NetBackup Restore window.
5. Select the files or folders you need in the Contents of '*<folder>*' pane. By default, NetBackup restores files and folders to their original location.
6. On the **Actions** menu, click **Start Restore of Marked Files**.

Restoring a True Image of a Directory

Note You can restore a true image of a directory only if the NetBackup policy that is backing up your files and directories is configured to collect true image restore information prior to backup. If in doubt, ask your NetBackup administrator.

What Is a True Image Restore?

A true image restore of a directory, by default, restores the directory so its contents are exactly what they were at the time of the most recent automatic full or incremental backup. Files deleted prior to the specified backup are not restored.

A true image restore is the best choice if, for example, you have recently cleaned up a directory by deleting unwanted files and now want to restore the latest version without having to repeat your cleanup. It is also possible to restore the true image of an earlier version of a directory.

Example of a True Image Restore

To illustrate the concept of a true image restore, refer to the following table, which shows the contents of a directory named `c:\doc` during a series of backups performed between 12/01/00 and 12/04/00.

Day Type of Backup	12/01/00 (Full)	12/02/00 (Incr)	12/03/00 (Incr)	12/04/00 (User Back)	12/04/00 (Incr)
	file1	file1	file1	file1	file1
	file2	file2	file2	file2	file2
	dirA/fileA	dirA/fileA	dirA/fileA	dirA/fileA	-
	dirB/fileB	-	-	-	-
	file3	-	-	-	-
				dirC/fileC	-
				file4	file4

Assume that you are going to restore the most recent version of the directory.

- If you perform a standard restore, NetBackup will restore all files and subdirectories that were backed up during the time period from 12/01/00 (last full backup) through 12/04/00.

  ```
  file1
  file2
  dirA\fileA
  dirB\fileB
  file3
  dirC\fileC
  file4
  ```

- If you restore a true image backup, NetBackup restores only the files and directories that existed at the time of the incremental backup on 12/04/00.

```
file1
file2
file4
```

NetBackup does not restore anything deleted prior to the 12/04/00 incremental backup.

Notice that the restored directory does not include the dirA and dirC subdirectories, even though they were backed up on 12/04/00 with a user-directed backup. NetBackup did not restore these directories because they did not exist at the time of the incremental backup that was the reference for the true image restore.

True Image Restores and Overwriting

If you are overwriting the directory you are restoring, NetBackup does not delete files that are currently in the directory but not in the true image restore backups.

Using the previous example, if you had created a file5 after the incremental backup occurred on 12/04/00, but before doing the restore, then the contents of the directory after the restore would have been:

```
file1
file2
file4
file5
```
(this is the new file that is not in any of the backups)

▼ To restore a true image of a directory

1. On the **Actions** menu, point to **Select Restore Type** and click **True Image Backups**.

Note You can perform a true image restore only if the TIR (True Image Restore) option on the NetBackup server is set AND if a backup with the TIR option set has been previously performed. If you get a `No Entity Found` message at this point, notify your NetBackup administrator.

2. In the All Folders pane of the NetBackup Restore (True Image) window, double-click the parent of the folder you want to restore.

   The double-click updates the NetBackup Restore (True Image) window to show the folders that are available for true image restores. Notice that the lists show only folders. Individual files do not appear because true image restores are intended only for restoring entire folders. To list or select individual files, use **Normal Backups**.

If NetBackup cannot find any folders, click **Search Folder** in the Search Backups dialog box. Also check the range of backups that you are searching (NetBackup History pane). If all of these settings are correct and no folders are found, ask the administrator to see if the NetBackup policy that is backing up your files and folders is configured to collect true image restore information.

3. Select the folder you want to restore by marking it in the Contents of '<*folder*>' pane of the NetBackup Restore (True Image) window (you must select from this side of the window).

Note When a file in the folder has the same file name as a file in the true image backup, NetBackup will delete the file from the folder and replace, or restore, the file from the true image backup. NetBackup will not delete files from the folder that are not in the true image restore.

4. On the **Actions** menu, click **Start Restore of Marked Files**.

   By default, NetBackup restores the folder to its original location.

Restoring from Backup Exec Images

NetBackup can read and restore Backup Exec images written by Backup Exec 7.0 or later, but the Backup Exec images must first be imported into NetBackup by your system administrator.

Backup Exec backup type descriptions in the NetBackup Restore window differ from the descriptions of the NetBackup types. The differences are as follows:

NetBackup Backup Type	Backup Exec Backup Type
Full	Full, Copy
Differential	Incremental
Cumulative Incremental	Differential
User Backup	All Other Types

When browsing Backup Exec system state components, only the top-level system state components are displayed.

You can use the Backup, Archive, and Restore interface to restore Microsoft Exchange images created by Backup Exec; for more information, see the *NetBackup for Microsoft Exchange Server System Administrator's Guide*.

You can use the Backup, Archive, and Restore interface to restore Microsoft SQL Server images created by Backup Exec; for more information, see the *NetBackup for Microsoft SQL Server System Administrator's Guide*.

▼ To restore from Backup Exec images

1. Start the Backup, Archive, and Restore interface.
2. Select **File** > **Select Files and Folders to Restore** > **from Backup Exec Backup**.

   The NetBackup Restore window appears.
3. Select the files or folders to restore.
4. On the **Actions** menu, click **Start Restore of Marked Files**.

   The Restore Marked Files dialog box displays.
5. Select the restore options.

   Files can be redirected to a different path. For more information, see "Redirecting Files to a Different Path."
6. Click **Start Restore** to start the restore operation.

Redirecting Files to a Different Path

In some instances, you may want to restore items to a file or path other than the one from which they were backed up. All items can be restored to a different path or individual items can be restored to different paths.

The redirection format for Backup Exec images is the same as the redirection format for NetBackup images. NetBackup does not support restoring Backup Exec Netware non-SMS backups created using the Netware redirector.

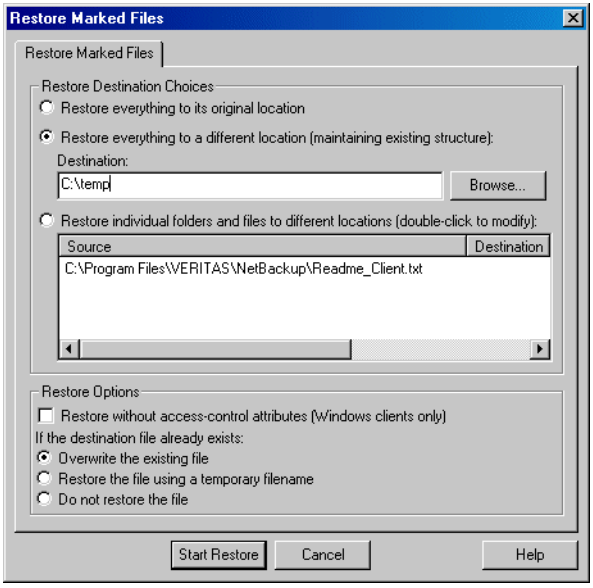
Restoring Everything to a Different Path

▼ To restore all items to a different path

1. Start the Backup, Archive, and Restore interface.
2. Select the desired restore type.
   - To restore from NetBackup images: select **File** > **Select Files and Folders to Restore** > **from Normal Backup**.
   - To restore from Backup Exec images: select **File** > **Select Files and Folders to Restore** > **from Backup Exec Backup**.

   The NetBackup Restore window appears.
3. Select the items to restore.
4. On the **Actions** menu, click **Start Restore of Marked Files**. The Restore Marked Files dialog box will appear.
5. Click **Restore everything to a different location**.

6. In the **Destination** box, indicate the folder to which you want to restore the items.



7. Under **Restore Options**, click the desired options.

Note The **Restore the file using a temporary filename** option is not available when restoring from Backup Exec images.

8. Click **Start Restore**.

   NetBackup will restore the items to the new destination folder.

Restoring Individual Items to Different Paths

▼ To restore individual items to different paths

1. Start the Backup, Archive, and Restore interface.
2. Select **File** > **Select Files and Folders to Restore** > **from Normal Backup**.

   The NetBackup Restore window appears.
3. Select the files or folders you wish to restore.

4. On the **Actions** menu, click **Start Restore of Marked Files**.

   The Restore Marked Files dialog box will appear.

5. Click **Restore individual folders and files to different locations**.

   The individual items you marked for restore will appear in the **Restore individual folders and files to different locations** list box. If you mark a folder to be restored, that folder name, not the individual files, will appear in the list box. To be able to restore individual files to different locations, files must be selected individually.

6. To change the destination location for a file:

   a. Double-click on the file name in the Source window. The Enter New Destination dialog opens.

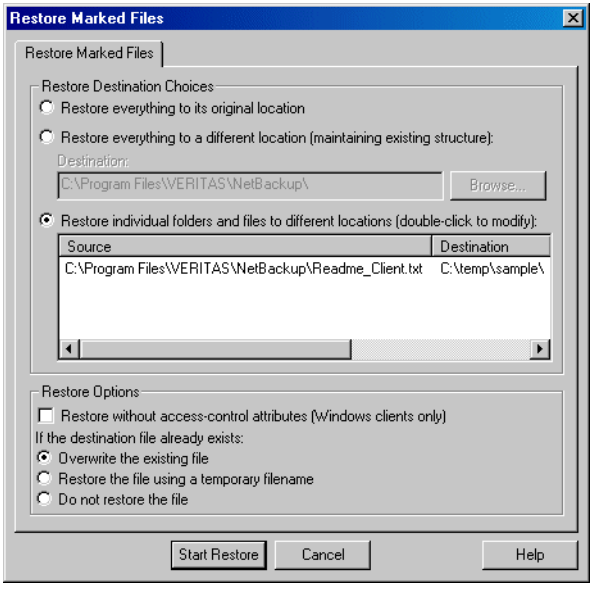
   b. Type a new path to restore to.

      or

      Click the **Browse** button to browse for and select a new path to restore to.

   c. Click **OK**.

      The new path entered appears in the Destination column, as shown in the following graphic.



d. Repeat these steps for each file or folder you want to restore.

7. Under **Restore Options**, click the desired options.

8. Click **Start Restore**.

Restoring Using a Temporary Filename

Note If restoring from Backup Exec images, a file cannot be restored to a temporary filename.

▼ **To restore using a temporary filename**

1. Open the NetBackup Restore window.

2. Select **File** > **Select Files and Folders to Restore** > **from Normal Backup**.

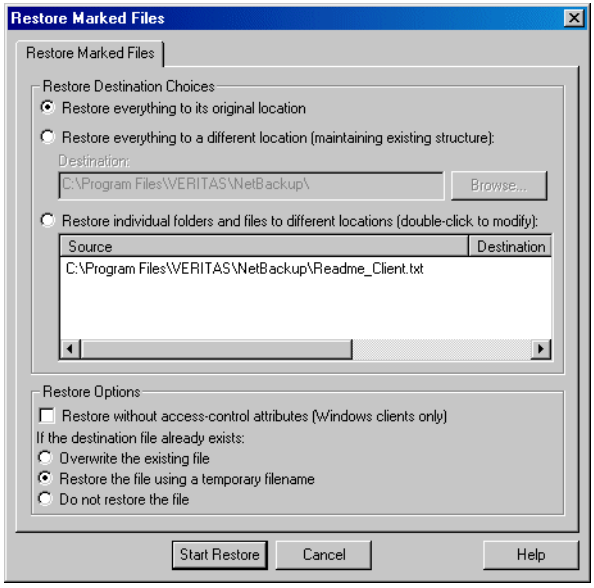
The NetBackup Restore window appears.

3. Select the item to restore.

4. On the **Actions** menu, click **Start Restore of Marked Files**.

The Restore Marked Files dialog box will appear.

5. Click **Restore the file using a temporary filename**, as shown in the following graphic.



6. Click **Start Restore**.

   NetBackup will restore the item to `filename`*`xxxxxx`*`.TMP`. Where filename is the name of the file being restore and ***xxxxxx*** is generated based on the current date and time.

Note If you select a folder for restore and then select **Restore the file using a temporary filename**, only the contents of the folder will be restored to temporary filenames. The folder itself does not get restored to a temporary name.

Restoring from a Disk-Image Backup

You can restore a NetBackup disk-image backup by using the Backup, Archive, and Restore interface. When restoring a backup of a disk image, only an entire drive can be restored.

Before you restore from a disk-image backup, make sure that you shut down all applications that are running on either the source or the destination drive. When restoring a Windows disk image, you must select the **Overwrite existing files** option in the Restore Files dialog.

Note The **from Raw Partition Backup** sub-menu option on the **Select Files and Folders to Restore** option from the **File** menu should be used only to restore raw partition backups of UNIX clients. To restore a backup of a Windows disk image, choose the **from Normal Backup** option.

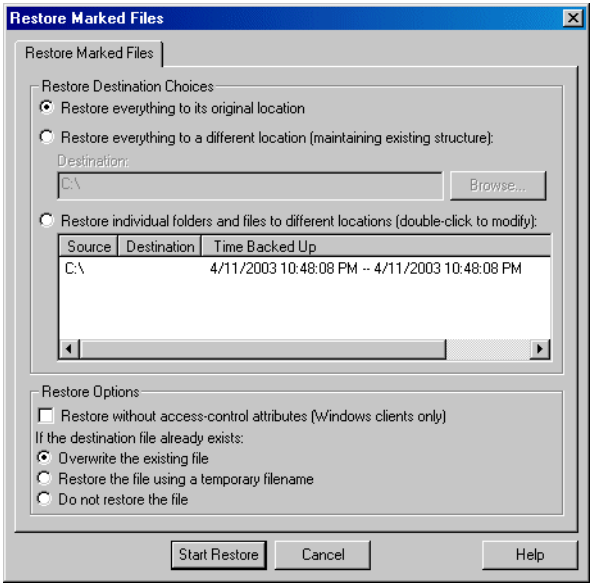
Restoring to the Same Location

A backup of a disk image can be restored to the drive from which it was backed up. The restored files will overwrite all of the information currently on the drive.

▼ To restore to the same location

1. Shut down all applications that are running on drive that you want to restore.
2. Open the NetBackup Restore window.
3. Click **Select for Restore** > **Restore from Normal Backup**.
4. Select the Policy type:
   a. From the **File** menu, choose **Specify NetBackup Machines and Policy Type**.
   b. Click the **Source Clients/Policy Type** tab.
   c. From the **Policy type** list, select **MS-Windows-NT**.
   d. Click **OK**.
5. Select the drive that you want to restore.
6. Click **Actions** > **Start Restore of Marked Files**.

   The Restore Marked files dialog box appears.



a. Choose the **Restore everything to its original location** option.

b. Choose the **Overwrite the existing file** option.

7. Click **Start Restore** to start the restore process.

Restoring to a Different Location

A backup of a disk image can be restored to a drive that is different from the drive that was backed up. The restored files will overwrite all of the information currently on the drive.

▼ To restore to a different location

1. Shut down all applications that are running on the drive that you want to restore to.

2. Open the NetBackup Restore window.

3. Click **Select for Restore** > **Restore from Normal Backup**.

4. Select the Policy type:

a. From the **File** menu, choose **Specify NetBackup Machines and Policy Type**.

b. Click the **Source Clients/Policy Type** tab.

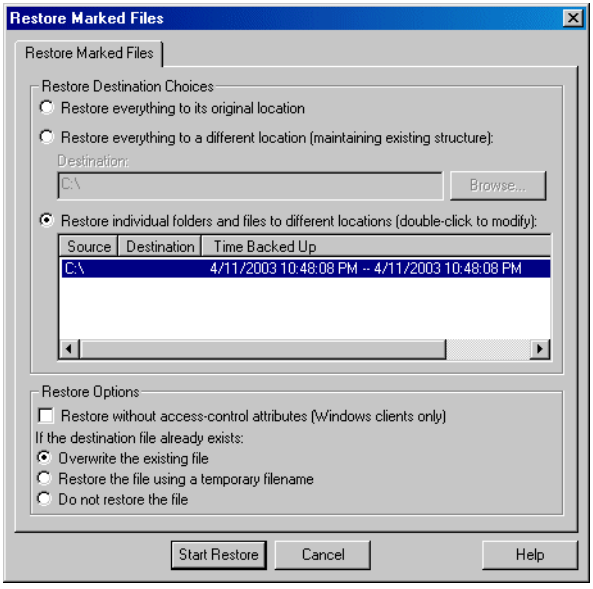
c. From the **Policy type** list, select **MS-Windows-NT**.

d. Click **OK**.

5. Select the drive that you want to restore.

6. Choose **Start Restore of Marked Files** from the **Actions** menu.

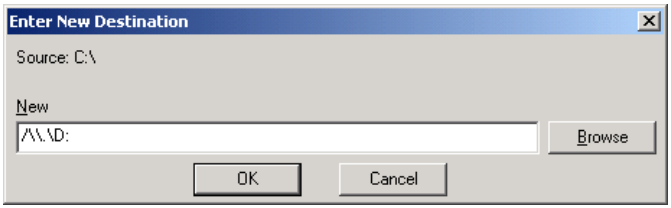
   The Restore Marked files dialog box displays.



7. Choose the **Restore individual files and folders to different locations** option.

8. To specify the destination drive, double-click on the line of text in the window.

The Enter New Destination dialog box displays.

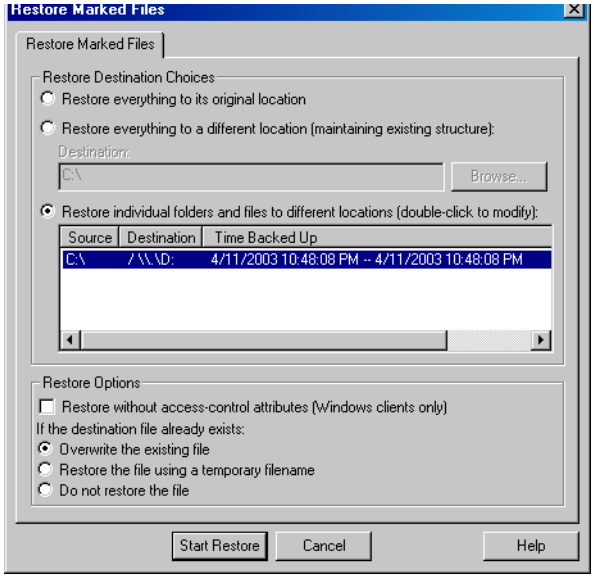


a. In the **New Destination** field, enter the drive in which the restored information should be placed. To avoid getting a syntax error message, the drive path must be entered as follows:

`/ \\.\D:` (where D is the drive in which the restored information should be placed)

b. Click the **OK** button to save your entry.

The Restore Marked Files dialog box appears.


Restore Marked Files
Restore Marked Files
Restore Destination Choices
Restore everything to its original location
Restore everything to a different location (maintaining existing structure):
Destination:
C:\
Browse...
Restore individual folders and files to different locations (double-click to modify):
Source
Destination
Time Backed Up
C:\ /\\.\D: 4/11/2003 10:48:08 PM -- 4/11/2003 10:48:08 PM
Restore Options
Restore without access-control attributes (Windows clients only)
If the destination file already exists:
Overwrite the existing file
Restore the file using a temporary filename
Do not restore the file
Start Restore
Cancel
Help

9. Choose the **Overwrite the existing file** option.

10. Click **Start Restore** to start the restore process.

Proxy Restore

In some environments users store their files on a file server rather than on their PC. A proxy restore allows backups of the file server to be restored to the file server from the user's desktop PC.

Note Although you are able to view and mark any of the folders and files in a selected backup, you will not be able to restore any items you do not have write access to.

▼ To perform a proxy restore

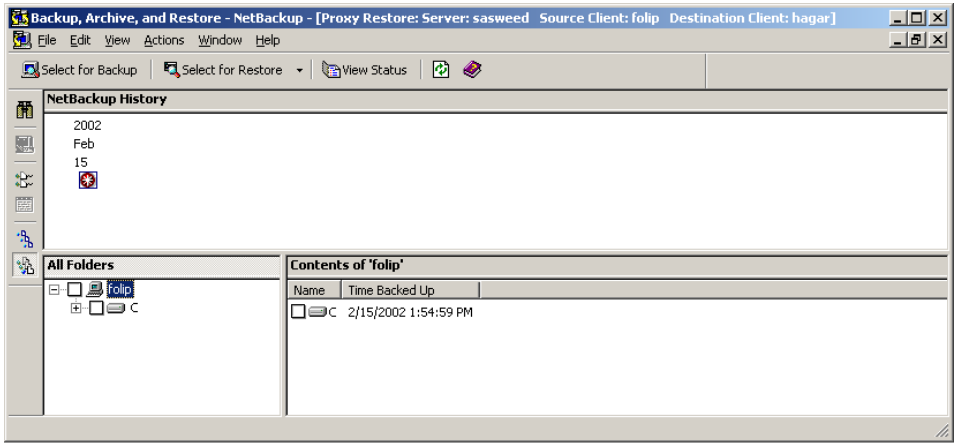
1. Open the NetBackup Restore window.

   a. On the **Actions** menu, click **Select Restore Type** > **Proxy Normal Backups**.

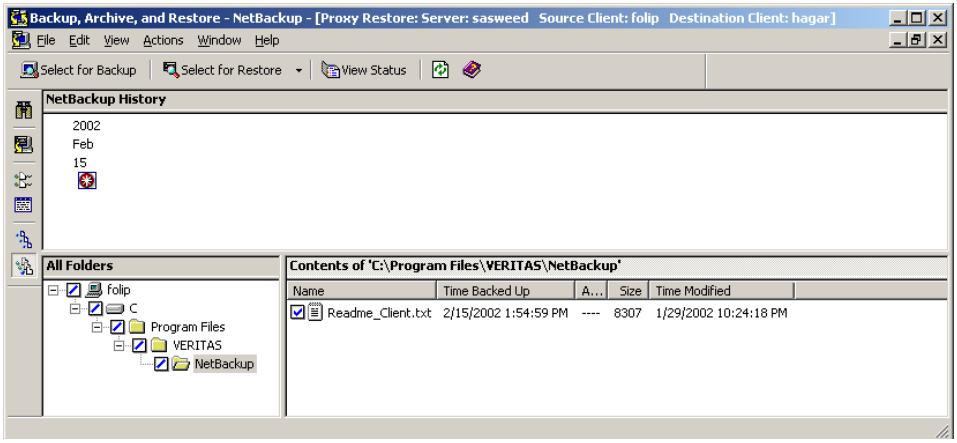
   The Browse for Computer dialog box appears.

   b. Select the file server to which you want to restore folders and/or files and click **OK**.

   The NetBackup Restore window appears. The NetBackup server will change to the master server of the selected file server.



2. Select the item you wish to restore.



3. On the **Actions** menu, click **Start Restore of Marked Files**.

   The Restore Marked Files dialog box will open.

4. Click **Overwrite the existing file**.

5. Click **Start Restore**.

Reference 3

This chapter provides reference information on the Backup, Archive, and Restore interface. It includes a description of the icons, menus, windows, and dialog boxes.

NetBackup Icons

The following table describes NetBackup icons you may see on the Microsoft Windows desktop.

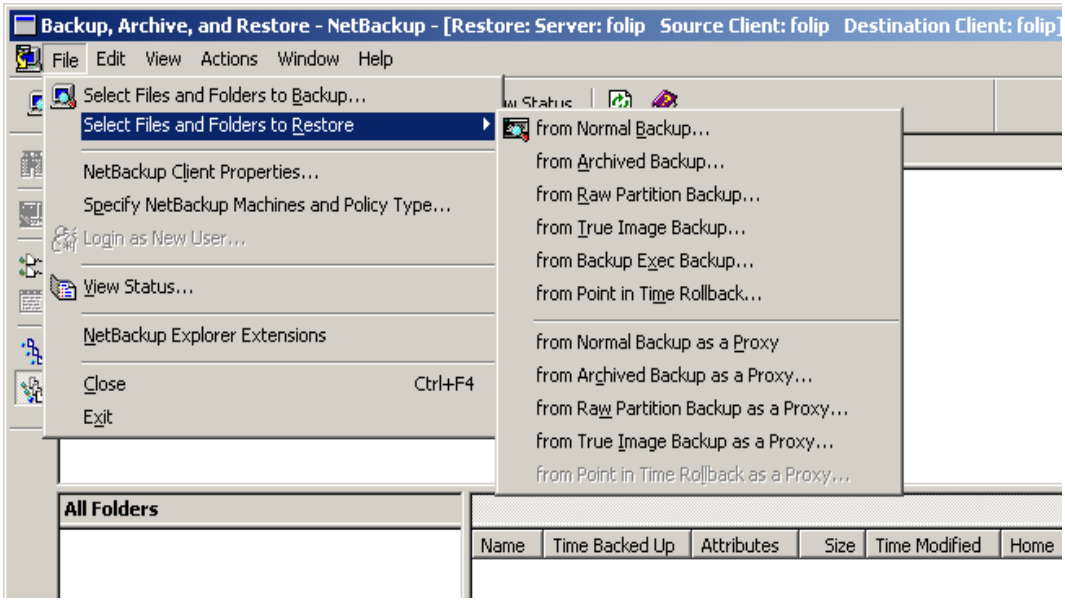
Icon	Description
	Represents NetBackup. It is used on the title bar in the Backup, Archive, and Restore interface, in the Windows Start menu, and Windows Explorer.
	Indicates that the NetBackup Client Job Tracker is running, but there are currently no backups or restores processing. Used in the system tray.
	Indicates that the NetBackup Client Job Tracker is running, with at least one restore processing. Used in the system tray. When the yellow arrow is blinking, you can open the NetBackup Client Job Tracker for an estimate of the restore operation.
	Indicates that the NetBackup Client Job Tracker is running, with at least one backup processing. Used in the system tray. When the yellow arrow is blinking, you can open the NetBackup Client Job Tracker for an estimate of the backup operation.
	Indicates that the NetBackup Client Job Tracker is running, with at least one backup and one restore processing. Used in the system tray with the yellow arrows blinking.

Menus

This section explains the menu bar commands on the Backup, Archive, and Restore interface.

File Menu

The **File** menu options provide overall control of your NetBackup session.


Backup, Archive, and Restore - NetBackup - [Restore: Server: folip Source Client: folip Destination Client: folip]
File Edit View Actions Window Help
Select Files and Folders to Backup...
Select Files and Folders to Restore
NetBackup Client Properties...
Specify NetBackup Machines and Policy Type...
Login as New User...
View Status...
NetBackup Explorer Extensions
Close Ctrl+F4
Exit
from Normal Backup...
from Archived Backup...
from Raw Partition Backup...
from True Image Backup...
from Backup Exec Backup...
from Point in Time Rollback...
from Normal Backup as a Proxy
from Archived Backup as a Proxy...
from Raw Partition Backup as a Proxy...
from True Image Backup as a Proxy...
from Point in Time Rollback as a Proxy...
All Folders
Name
Time Backed Up
Attributes
Size
Time Modified
Home

These menu options are available on the **File** menu.

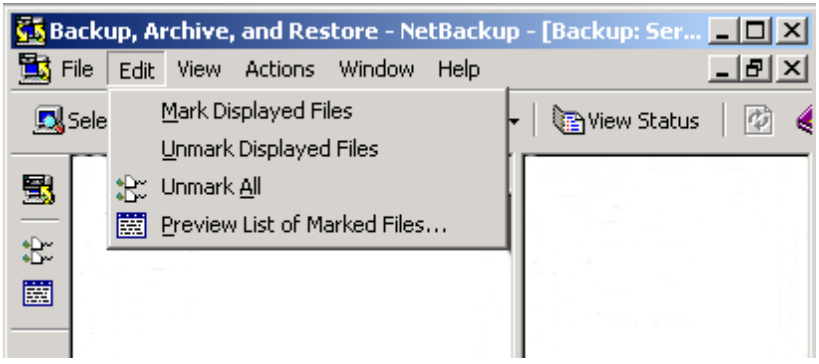
Select Files and Folders to Backup	Opens the NetBackup Backup window. From this window, you can select files, folders, or registry keys to back up, and then start a backup or archive operation.
Select Files and Folders to Restore	Opens the submenu and provides access to the following commands:
from Normal Backup	Opens a NetBackup Restore window. From this window, you can select files, folders, or registry keys saved during previous backups and start a restore operation.
from Archived Backup	Opens a NetBackup Restore (Archive) window. From this window, you can select files, folders, or registry keys saved during previous archives and start a restore operation.
from Raw Partition Backup	This menu option is not supported in NetBackup 5.0 for Windows. To restore a raw partition backup, use the **from Normal Backup** menu option.

from True Image Backup	Opens a NetBackup Restore (True Image) window. From this window, you can select files, folders, or registry keys saved during previous true image backups and start a true image restore operation.
from Backup Exec Backup	Opens a NetBackup Restore window. From this window, you can select files, folders, or registry keys saved during previous backups and restore Backup Exec images.
from Point in Time Rollback	Point in Time Rollback is available only with the Advanced Client option; for more information, see the *NetBackup Advanced Client System Administrator's Guide*.
from Normal Backup as a Proxy	This feature allows a user on a supported Windows system to browse the backups of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
from Archived Backup as a Proxy	This feature allows a user on a supported Windows system to browse the backups of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
from Raw Partition Backup as a Proxy	This feature allows a user on a supported Windows system to browse the raw partition backup of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
from True Image Backup as a Proxy	This feature allows a user on a supported Windows system to browse the true image backup of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the local machine.
from Point in Time Rollback as a Proxy	Point in Time Rollback is available only with the Advanced Client option; for more information, see the *NetBackup Advanced Client System Administrator's Guide*.
NetBackup Client Properties	Opens the NetBackup Client Properties dialog box. From this dialog box, you can specify the parameters that control backups, archives and restores for your client. See "NetBackup Dialog Box" on page 62 for more information.
Specify NetBackup Machines and Policy Type	Opens the Specify NetBackup Machines and Policy Type dialog box. From this dialog you can change the settings for the master server and client machines. See "Specify NetBackup Machines and Policy Type Dialog Box" on page 65 for more information.

Login as New User	Log into the Backup, Archive, and Restore interface as a different user. If the Login as New User option is available, access to your NetBackup environment is controlled by NetBackup Access Management. To log in as a new user, select this option and then enter the appropriate user name, password, and domain information in the dialog that appears.
View Status	Opens the View Status dialog box. From this dialog box, you can review the progress report of a user operation in progress. You can also review logs from past user-directed NetBackup operations.
NetBackup Explorer Extensions	If the NetBackup Explorer Extensions feature is installed, this item toggles this feature off and on.
Close	This command appears in the **File** menu when a NetBackup Backup window or a NetBackup Restore window is open. Use this command to close an active window.
Exit	Terminates the Backup, Archive, and Restore interface. Any backups or restores in progress will continue to completion.

Edit Menu

The **Edit** menu is available when either the NetBackup Backup window or the NetBackup Restore window is opened.



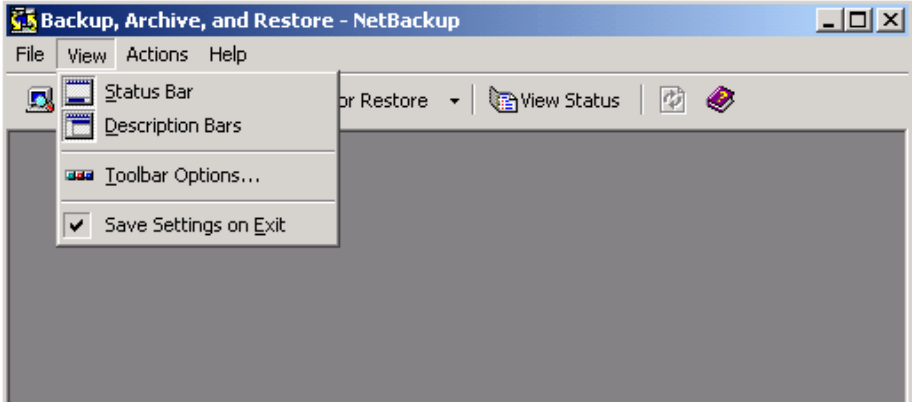
The commands on the **Edit** menu modify your selections in the currently selected backup or restore window.

Mark Displayed Files	Marks only the files, folders, or registry keys that currently appear in the Contents of '*<folder>*' pane of the NetBackup Backup window or NetBackup Restore window.

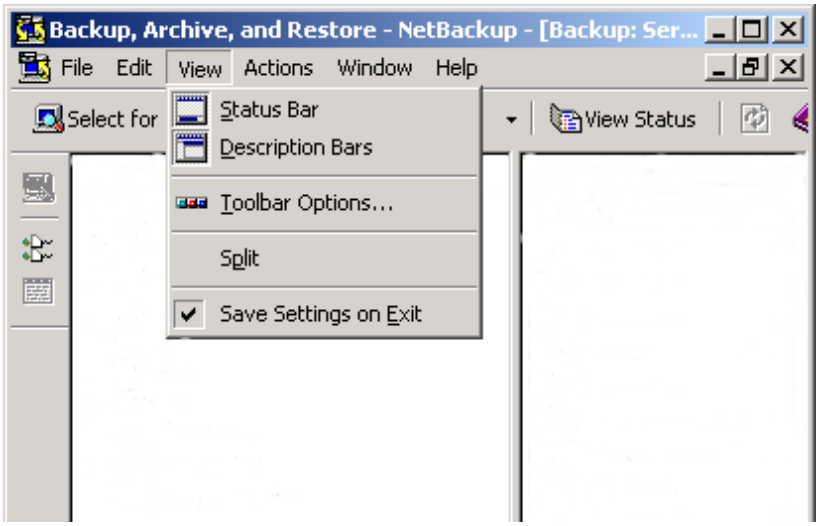
Unmark Displayed Files	Unmarks only the selections that currently appear in the Contents of '*<folder>*' pane of the NetBackup Backup window or NetBackup Restore window.
Unmark All	Unmarks all files, folders, or registry keys in this window. You can also execute this command by clicking the **Unmark All** button on the NetBackup Restore window toolbar or the NetBackup Backup window toolbar.
Preview List of Marked Files	Opens the Preview List dialog box. This command is enabled when files, folders, or registry keys have been selected in the NetBackup Backup window or the NetBackup Restore window. You can also execute this command by clicking **Preview List of Marked Files**n the NetBackup Restore window toolbar or the NetBackup Backup window toolbar.

View Menu

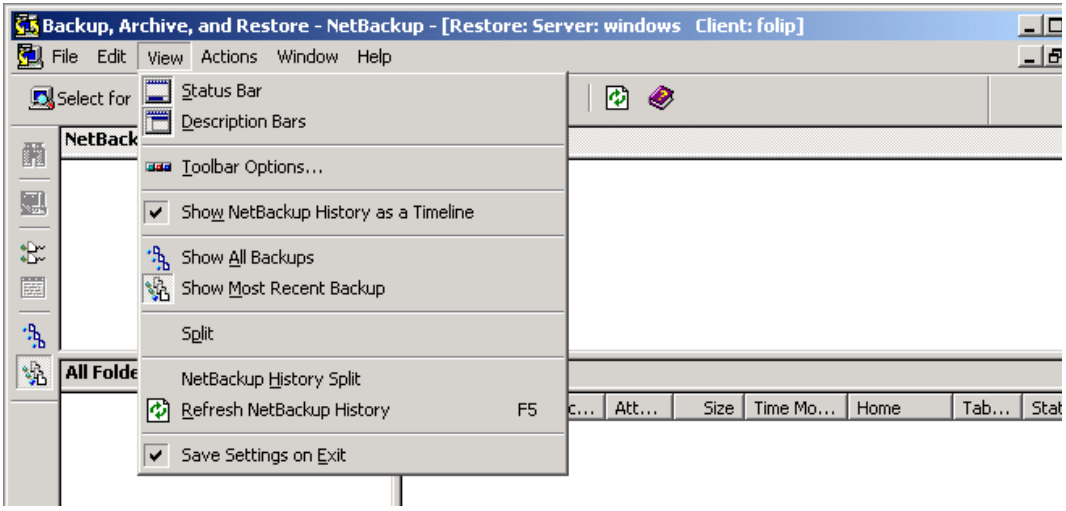
The **View** menu options control the contents of the NetBackup Backup window and the NetBackup Restore window.



During a backup or archive operation, the following menu options are available.



During a restore operation, the following menu options are available.



Status Bar Shows the NetBackup status bar. Deselect this option to hide the NetBackup status bar.

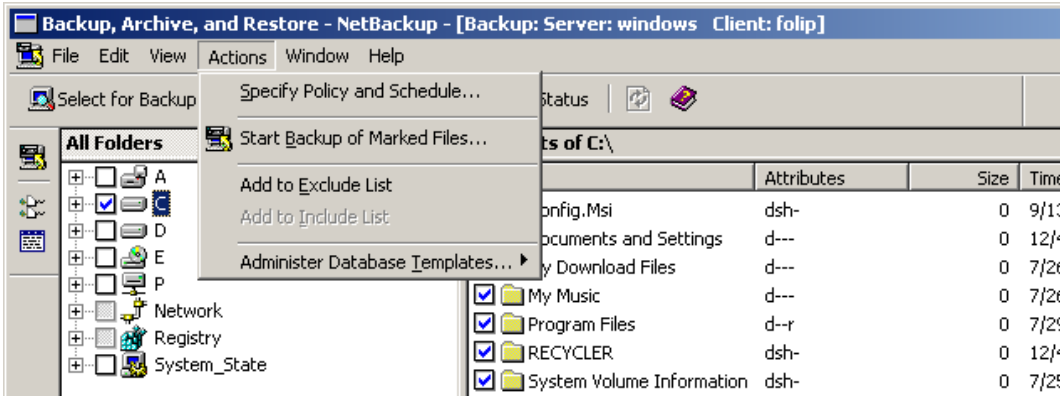
Description Bars Shows the description bars on the backup and restore window panes. Deselect this option to turn off the description bars.

Toolbar Options	Opens the Toolbar Options dialog box. Go to "Toolbar Options Dialog Box" on page 74 for more details.
Show NetBackup History as a Timeline	Displays the NetBackup History pane as a timeline. To show the NetBackup History pane as a detailed list, clear this checkbox.
Show All Backups	Shows all instances of files, folders, or registry keys in the currently selected image(s). You can also execute this command on the NetBackup Restore window toolbar.
Show Most Recent Backup	Shows the most recent backup of files, folders, or registry keys from the currently selected backup image(s). You can also execute this command on the NetBackup Restore window toolbar.
Split	Changes the cursor to a double bar with two arrows and positions it over the vertical split bar between the All Folders and Contents of '<*folder*>' panes. You can then move the cursor left or right to position the split bar.
NetBackup History Split	Changes the cursor to a double bar with two arrows and positions it over the horizontal split bar between the NetBackup History pane and the All Folders and Contents of '<*folder*>' panes. You can then move the cursor up or down to position the split bar.
Refresh NetBackup History	Updates information in the NetBackup History pane.
Save Settings on Exit	When selected, this command will save window specific settings upon exit.

Actions Menu

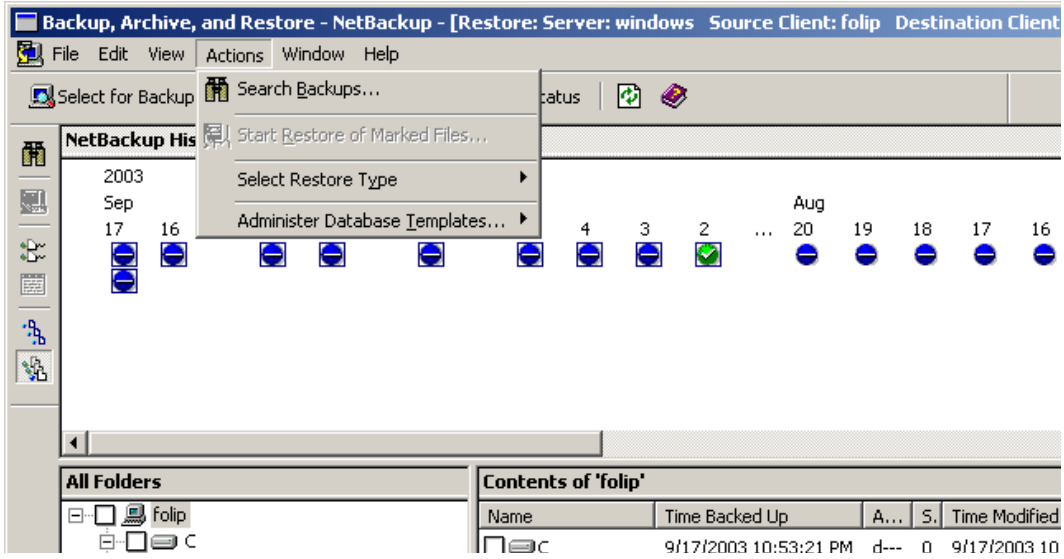
The **Actions** menu options are used to control backup and restore operations. The menu options listed in this menu are dependent on which NetBackup window (Backup or Restore) is active and which extra NetBackup features are licensed.

The following menu options are displayed in the **Actions** menu when the NetBackup Backup window is active. These commands control backup operations.



Specify Policy and Schedule	Opens the Backup Policy and Schedule dialog box. See "Backup Policy and Schedule Dialog Box" on page 74 for more details.
Start Backup of Marked Files	Opens the Specify Backup Options dialog box. You can also execute this command by clicking **Start Backup of Marked Files** on the NetBackup Backup window toolbar.
Add to Exclude List	Adds the selected files, folders, or registry keys to the Exclude File List. For more details, refer to "Exclude List Tab" on page 100.
Add to Include List	Adds the selected files, folders, or registry keys to the Include File List. For more details, refer to "Include List Tab" on page 102.
Administer Database Templates	Allows you to list, remove, rename, edit, and run existing database templates. If you are licensed for NetBackup for DB2 Agent or NetBackup for Oracle Agent, you can administer database templates by selecting the appopriate menu option.

The following menu options are displayed in the **Actions** menu when the NetBackup Restore window is active. These commands control restore operations.

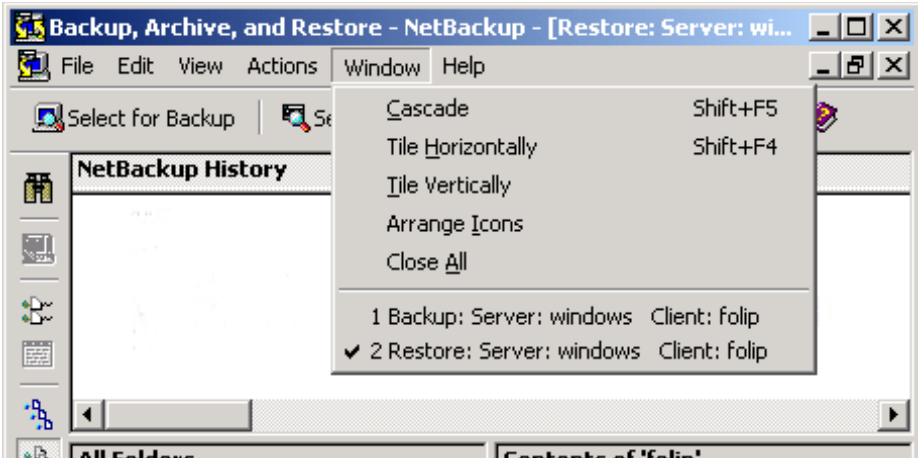


SearchBackups	Opens the Search Backups dialog box. You can also execute this command by clicking **Search Backups** on the NetBackup Restore window toolbar.
Start Restore of Marked Files	Opens the Restore Marked Files dialog box. You can also execute this command by clicking **Start Restore** on the NetBackup Restore window toolbar.
Select Restore Type	Opens the submenu and provides access to the following commands:
Normal Backups	Opens the NetBackup Restore window. You can select files, folders, or registry keys saved during previous backups and start a restore operation.
Archived Backups	Opens the NetBackup Restore (Archive) window. You can select files, folders, or registry keys saved during previous archives and start a restore operation.
Raw Partition Backups	This menu option should be used to restore raw partition backups of UNIX clients. To restore a backup of a Windows disk-image, choose the **Normal Backups** menu option.
True Image Backups	Opens the NetBackup Restore (True Image) window. You can select files, folders, or registry keys and start a true image restore operation.

Backup Exec Backups	Opens the NetBackup Restore window. You can select files, folders, or registry keys saved during previous backups and restore Backup Exec images.
Point in Time Rollback Backup	Point in Time Rollback is available only with the Advanced Client option; for more information, see the *NetBackup Advanced Client System Administrator's Guide*.
Proxy Normal Backups	This feature allows a user on a supported Windows system to browse the backups of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
Proxy Archived Backups	This feature allows a user on a supported Windows system to browse the archives of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
Proxy Raw Partition Backups	This menu option should be used to restore proxy raw partition backups of UNIX clients. To restore a proxy backup of a Windows disk-image, choose the **Proxy Normal Backups** menu option.
Proxy True Image Backups	This feature allows a user on a supported Windows system to browse the true image backups of another supported Windows system. The remote user can select files, folders, or registry keys from the backup and restore to the remote machine.
Proxy Point in Time Rollback Backups	Point in Time Rollback is available only with the Advanced Client option; for more information, see the *NetBackup Advanced Client System Administrator's Guide*.
Administer Database Templates	Allows you to list, remove, rename, edit, and run existing database templates. If you are licensed for NetBackup for DB2 Agent or NetBackup for Oracle Agent, you can administer database templates by selecting the appopriate menu option.

Window Menu

The **Window** menu options are used to arrange the active NetBackup windows. This menu is available when the NetBackup Backup window or the NetBackup Restore window is opened.

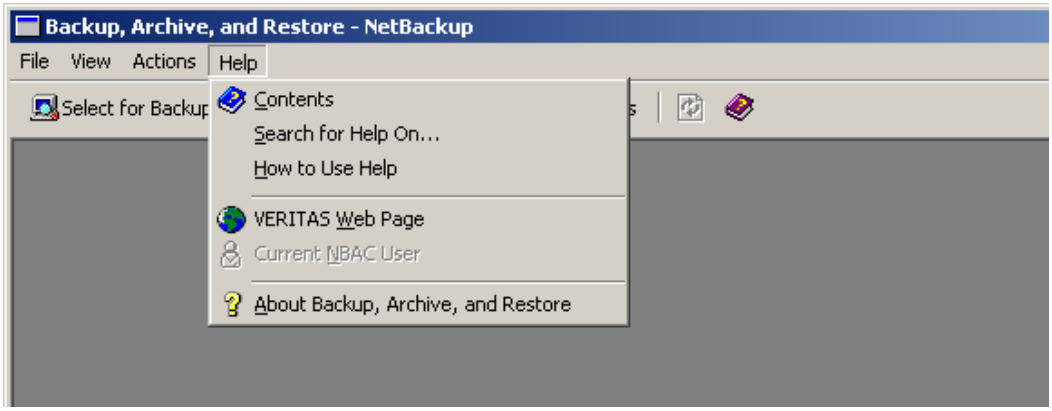


These menu options are available on the **Window** menu:

Cascade	Arranges NetBackup windows so they overlap, but the title bars will still be visible.
Tile Horizontally	Modifies the size of NetBackup windows and arranges them horizontally on the desktop.
Tile Vertically	Modifies the size of NetBackup windows and arranges them vertically on the desktop.
Arrange Icons	Arranges icons so they are located in the lower left corner of the desktop.
Close All	Closes the NetBackup Backup windows and the NetBackup Restore windows.

Help Menu

The **Help** menu provides access to the online instructions for using NetBackup.



The following **Help** menu options are available:

Contents	Opens the table of contents in the online help.
Search For Help On	Opens the search facility for the online help.
How to Use Help	Describes how to use the online help.
VERITAS Web Page	Opens the VERITAS Web site in your internet browser.
Current NBAC User	Displays a dialog that lists the access credentials of the current user: user name, domain, expiration date, authentication type, and by whom the credentials were issued. Available only if access to your NetBackup environment is controlled by NetBackup Access Management.
About Backup, Archive, and Restore	Displays information about NetBackup, including the version number.

Windows

This section explains the windows on the Backup, Archive, and Restore interface.

NetBackup Window Icons

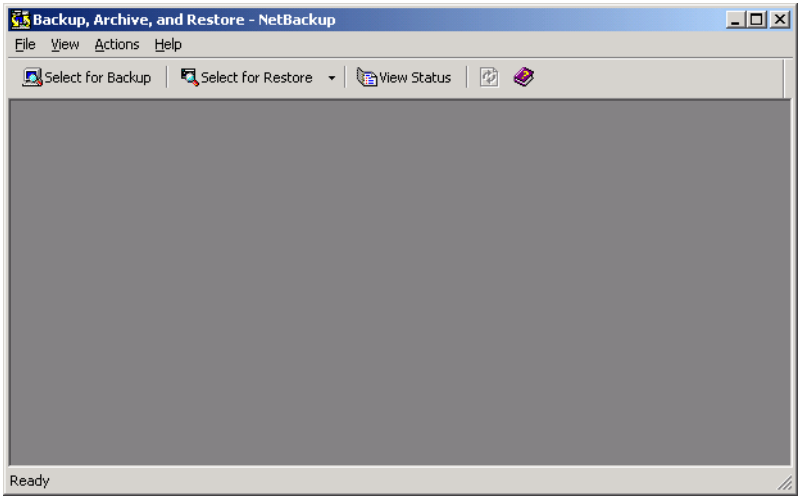
The following icons are displayed in the NetBackup windows. A description of each icon is included in the table.

Icon	Description
	Represents NetBackup. It is used on the title bar in the Backup, Archive, and Restore interface, in the Windows Start menu, and Windows Explorer.
	Represents a backup. It is used on the title bar of the backup window.
	Represents a restore. It is used on the title bar of the restore window.
	Represents a floppy drive. Used in the All Folders pane.
	Represents a logical hard drive. Used in the All Folders pane.
	Represents a CD-ROM drive. Used in the All Folders pane.
	Represents a networked drive. Used in the All Folders pane.
	Represents a client PC. Used in the All Folders pane.
	Expand or collapse these structures to see more or fewer subentries. A plus sign indicates that the folder can be expanded. A minus sign indicates that the folder can be collapsed. Used in the All Folders pane.
	Represents a closed folder that may or may not contain other items. Used in the All Folders pane where only folders are displayed under drives. Also in the Contents of '*<folder>*' pane.
	Represents an opened folder that may or may not contain other items. Used in the All Folders pane where only folders are displayed under drives.
	Represents a file or a folder, with all of its contents, that has been marked for backup or restore. Used in the All Folders pane and the Contents of '*<folder>*' pane.
	Represents a folder with some of its contents marked for backup or restore. Used in the All Folders pane and the Contents of '*<folder>*' pane.
	Represents a file or folder that has not been marked for backup or restore, but could be. Used in the All Folders pane and the Contents of '*<folder>*' pane.

Icon	Description
	Represents an object with all of its contents marked for backup or restore, but the object itself cannot be marked. Used in the All Folders pane and the Contents of '*<folder>*' pane.
	Represents an object with some of its contents marked for backup or restore, but the object itself cannot be marked. Used in the All Folders pane and Contents of '*<folder>*' pane.
	Represents an object that cannot be marked for backup or restore but contains other objects that can be marked for backup or restore. Used in the All Folders pane and Contents of '*<folder>*' pane.
	Represents a folder that wasn't specifically backed up, but at least some of its contents were backed up. Used in the All Folders pane of the NetBackup Restore window.
	Represents a file that doesn't have an icon associated with it. Used in the Contents of '*<folder>*' pane.
	Represents the entire registry. Used in the All Folders pane. The registry opens to two base keys: **HKEY_LOCAL_MACHINE** and **HKEY_USERS**.
	Represents a registry key. Used in the All Folders pane. Also used in Contents of '*<folder>*' pane if it contains subkeys.
	Represents the entire network. Used in the All Folders pane.
	Represents a specific network. Used in the All Folders pane and the Contents of '*<folder>*' pane.
	Represents a domain within a network. Used in the All Folders pane and the Contents of '*<folder>*' pane.

Backup, Archive, and Restore Window

The Backup, Archive, and Restore Window displays when you start NetBackup.

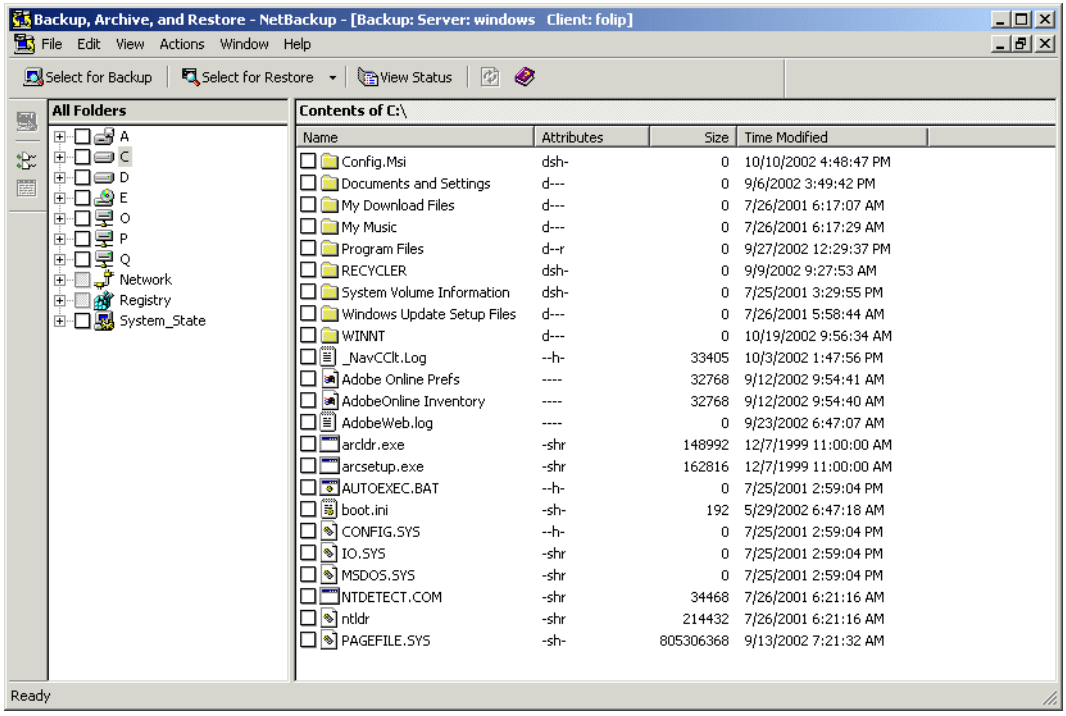


The following buttons are displayed on the toolbar. A description of each button is included in the table.

Button	Description
	Opens the NetBackup Backup window.
	Opens the NetBackup Restore window.
	Opens the View Status dialog box.
	Updates the list of backup images. This button is only available when a Restore window is open and is the active window.
	Opens the online help.

NetBackup Backup Window

The NetBackup Backup Window displays the files, folders, or registry keys that you can mark for back up.


Backup, Archive, and Restore - NetBackup - [Backup: Server: windows Client: folip]
File Edit View Actions Window Help
Select for Backup
Select for Restore
View Status
All Folders
A
C
D
E
O
P
Q
Network
Registry
System_State
Contents of C:\
Name Attributes Size Time Modified
Config.Msi dsh- 0 10/10/2002 4:48:47 PM
Documents and Settings d--- 0 9/6/2002 3:49:42 PM
My Download Files d--- 0 7/26/2001 6:17:07 AM
My Music d--- 0 7/26/2001 6:17:29 AM
Program Files d--r 0 9/27/2002 12:29:37 PM
RECYCLER dsh- 0 9/9/2002 9:27:53 AM
System Volume Information dsh- 0 7/25/2001 3:29:55 PM
Windows Update Setup Files d--- 0 7/26/2001 5:58:44 AM
WINNT d--- 0 10/19/2002 9:56:34 AM
_NavCClt.Log --h- 33405 10/3/2002 1:47:56 PM
Adobe Online Prefs ---- 32768 9/12/2002 9:54:41 AM
AdobeOnline Inventory ---- 32768 9/12/2002 9:54:40 AM
AdobeWeb.log ---- 0 9/23/2002 6:47:07 AM
arcldr.exe -shr 148992 12/7/1999 11:00:00 AM
arcsetup.exe -shr 162816 12/7/1999 11:00:00 AM
AUTOEXEC.BAT --h- 0 7/25/2001 2:59:04 PM
boot.ini -sh- 192 5/29/2002 6:47:18 AM
CONFIG.SYS --h- 0 7/25/2001 2:59:04 PM
IO.SYS -shr 0 7/25/2001 2:59:04 PM
MSDOS.SYS -shr 0 7/25/2001 2:59:04 PM
NTDETECT.COM -shr 34468 7/26/2001 6:21:16 AM
ntldr -shr 214432 7/26/2001 6:21:16 AM
PAGEFILE.SYS -sh- 805306368 9/13/2002 7:21:32 AM
Ready

To access this window:

- On the **File** menu, click **Select Files and Folders to Backup.**
- Click the **Select for Backup** button on the Backup, Archive, and Restore interface toolbar.

You can position this window separately. You can also cascade, tile or minimize the window by using commands from the **Window** menu.

Buttons

The following buttons are displayed in the NetBackup Backup window. A description of each button is included in the table.

Button	Description
	Opens the Specify Backup Options dialog box. From this dialog you can start the backup operation.
	Unmarks all files, folders and registry keys in this window. You can also execute this command by selecting **Unmark All** from the **Edit** menu.
	Opens the Preview List dialog box during a backup operation. You can also execute this command by selecting **Preview List of Marked File** from the **Edit** menu.

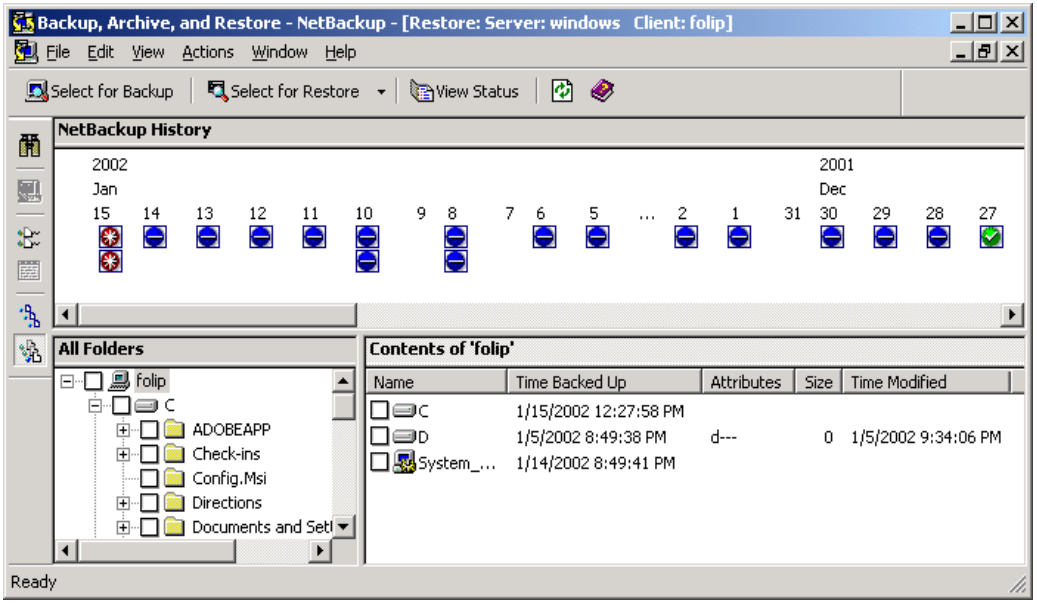
Panes

The NetBackup Backup window contains two panes: All Folders and Contents of '*<folder>*'.

- To adjust the width of the panes, position the cursor over the split bar. The cursor will change to a double-headed arrow. Press the left mouse button and move the cursor left or right to position the split bar.
- To resize columns in a pane, move the mouse over the column header until the cursor changes to a double-headed arrow. Hold the left mouse button down and move the mouse left or right to decrease or increase the column width.
- To sort information in a pane, click on the column header for the information you wish to sort by. For example, to sort the pane by "Size," click on the Size column. This will sort the list from the smallest to largest size. Click the Size column again to sort from largest to smallest.

NetBackup Restore Window

The NetBackup Restore Window displays the files, folders, or registry keys that you can mark for restore.



To access this window:

- On the **File** menu, click **Select Files and Folders to Restore**, then click the desired type of restore.
- To open the same type of restore as opened previously, click **Select for Restore** on the toolbar.
- To open a different type of restore, click the arrow next to the **Select for Restore** button, then select the desired type of restore.

The folder trees in this window contain only files and folders that were backed up. You can position this window separately. You can also cascade, tile, or minimize the window by using commands from the **Window** menu.

Notes:

- If the client belongs to more than one policy, the default display starts with the last full backup that occurred first. For example, assume that the client belongs to Policy A and Policy B and full backups occur for both of them. If the last full backup for Policy A occurred before the one for Policy B, then the display shows files ranging from the time of the Policy A full backup.
- If you are restoring from a true image backup, the NetBackup Restore window shows only the folders that were included in true image backups. Files do not appear in this window because you cannot select individual files for a true image restore.

Buttons

The following buttons are available on the NetBackup Restore window. A description of each button is included in the table.

Button	Description
	Opens the Search Backups dialog box.
	Opens the Restore Marked Files dialog box. From this dialog you can start the restore operation.
	Unmarks all files, folders, or registry keys in this window. You can also execute this command by selecting **Unmark All** from the **Edit** menu.
	Opens the Preview List dialog box during a restore operation. You can also execute this command by selecting **Preview List of Marked Files** from the **Edit** menu.
	Shows all instances of the files, folders, or registry keys in the currently selected image(s). You can also execute this command by selecting **Show All Backups** from the **View** menu.
	Shows the most recent backup of files, folders, or registry keys in the selected backup images. You can also execute this command by selecting **Show Most Recent Backup** from the **View** menu.

Panes

The NetBackup Restore window is split into three panes: the NetBackup History pane on the top, the All Folders pane on the left and the Contents of '*<folder>*' pane on the right.

- To adjust the height of the NetBackup History pane, position the cursor over the horizontal split bar. The cursor will change to a double bar with two arrows. Press the left mouse button and move the cursor up or down to position the split bar.

- To adjust the width of the All Folders pane and the Contents of '<*folder*>' pane, position the cursor over the vertical split bar. The cursor will change to a double bar with two arrows. Press the left mouse button and move the cursor left or right to position the split bar.
- To resize columns in a pane, move the mouse over the column header until the cursor changes to a double-headed arrow. Hold the left mouse button down and move the mouse left or right to decrease or increase the column width.
- To sort information in a pane, click on the column header for the information you wish to sort by. For example, to sort the pane by "Size," click on the Size column. This will sort the list from the smallest to largest size. Click the Size column again to sort from largest to smallest.

NetBackup History Pane

The NetBackup History pane shows the NetBackup image(s). When first opened, the following backup images are selected by default:

- The most recent full backup.
- All cumulative-incremental backups and differential-incremental backups that have occurred since the most recent full backup.
- All user-directed backups that have occurred since the most recent full backup.

If there is no full backup, only the most recent image will be selected.

▼ To open the NetBackup history pane

- Position the cursor over the horizontal split bar. The cursor will change to a double-headed arrow. Press the left mouse button and move the cursor up or down to position the split bar.

  or

- On the **View** menu, click **NetBackup History Split**. This changes the cursor to a double-headed arrow. Move the cursor up or down to position the split bar. Click the left mouse button to hold position.

▼ To show backup history as a timeline

To show the NetBackup History pane as a timeline, from the **View** menu click **Show NetBackup History as a Timeline**.

The icons, representing images, appear directly underneath the date of the backups. Icons with a square represent selected backup images. Several backup image icons may appear below a date. The most current backup image is on top of the list. As you move the cursor over the icons, tool tips will show the schedule type and the date and time of the backup.

Tip If you do not see tool tips, open the Toolbar Options dialog box from the **View** menu and select **Show tool tips**.

Icon	Description
	This green icon represents a full backup.
	This blue icon represents a differential incremental backup.
	This light blue icon represents a cumulative incremental backup.
	This red icon represents a user-directed backup.
	This yellow icon represents a user-directed archive.
	This grey icon represents an unknown type of backup.

▼ To select backup images

- Select a single backup image by clicking on it.
- Select a range of backup images by clicking on the first, holding down the Shift key, and clicking on the last image.

▼ To show backup history as a detailed list

To show the NetBackup History pane as a detailed list, clear the **Show NetBackup History as a Timeline** option on the **View** menu. The list starts with the most recent backup and includes the following information (reading from left to right).

- Date and time when the backup occurred.
- Date when NetBackup will expire the backup and delete it from the NetBackup History pane.
- Number of files in the backup.
- Size of the backup in kilobytes.
- Whether the backup is compressed (Y for yes, N for no).
- Type of schedule(s).
- Name of the policy associated with the backup. The system administrator configures the policy names, as explained in the *NetBackup System Administrator's Guide, Volume I*.
- Keyword assigned to the backup.

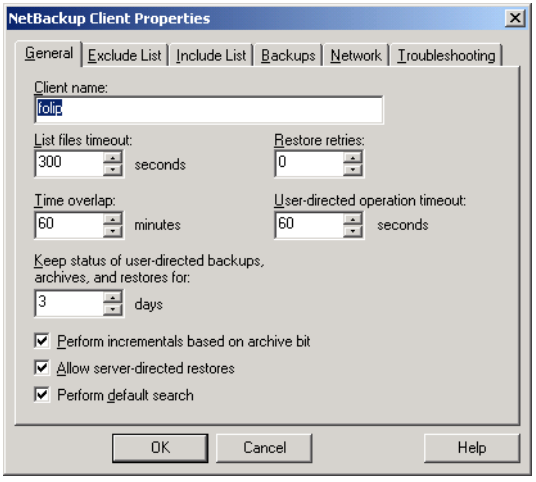
Dialog Boxes

This section describes the dialog boxes used in the Backup, Archive, and Restore interface.

NetBackup Dialog Box

This section explains the tabs found in the NetBackup Client Properties dialog box. To open this dialog box, choose **NetBackup Client Properties** on the **File** menu.

General Tab



Use this tab to set any of the configuration parameters for your client.

▼ **To access the General tab**

1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **General** tab.

Only the system administrator should change the following parameters. Refer to "General Tab" on page 98 for details on these parameters:

- **Client name**
- **List files timeout**
- **Restore retries**

- **Time overlap**
- **User-directed operation timeout**
- **Perform incrementals based on archive bit**
- **Allow server-directed restores**

The NetBackup client user as well as the system administrator can change the following parameters.

Keep status of user-directed backups, archives, and restores for	Specify the number of days to store progress reports before the system will automatically delete them. Default is 3 days. The minimum allowable value is zero. The maximum is 9,999.
Perform default search	If selected, NetBackup will automatically search the default range of backup images and display the backed up folders and files whenever a restore window is opened. Clear this box to disable the initial search. The NetBackup Restore window will not show any files or folders when initially opened. Clicking a backup image, or selecting a range of backup images, will initiate a search. By default, this box is selected.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Exclude List Tab

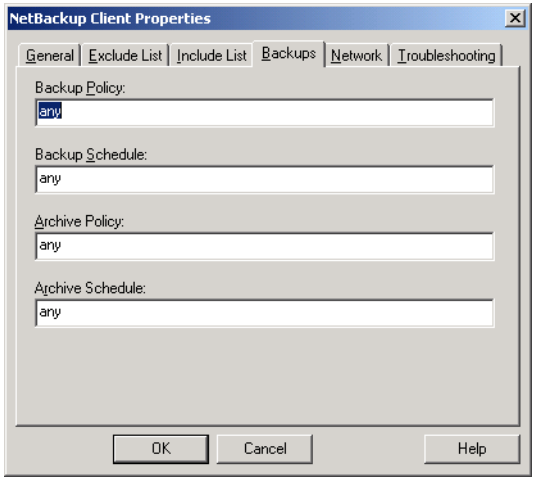
Only the system administrator should change the parameters on this tab. System administrators should refer to “Exclude List Tab” on page 100 for details on these parameters.

Include List Tab

Only the system administrator should change the parameters on this tab. System administrators should refer to “Include List Tab” on page 102 for details on these parameters.

Backups Tab

Use this tab to specify the policies and schedules to use when you start a backup from the client.



▼ To access the Backups tab

1. On the **File** menu, click **Configure NetBackup Client Properties**.
2. Click the **Backups** tab.

Note Changes made to this tab will not apply to currently open backup windows. The changes will apply to all backup windows opened after the tab modifications have been saved.

Backup Policy Specify the policy to use for user-directed backups of this client. If you set this value to "any" (which is the default), NetBackup uses the first policy that it finds with both the client name and a user-directed backup schedule(s).

Backup Schedule Specify the schedule to use for the user-directed backups for this client. If you set this value to "any" (which is the default), NetBackup uses the first user-directed backup schedule in the first policy that it finds with both the client name and a user-directed backup schedule.

Archive Policy	Specify the policy to use for user-directed archives of this client. If you set this value to "any" (which is the default), NetBackup uses the first policy that it finds with both the client name and a user-directed archive schedule.
Archive Schedule	Specify the user-directed archive schedule to use for user-directed archives of this client. If you set this value to "any" (which is the default), NetBackup uses the first user-directed archive schedule in the first policy that it finds with both the client name and a user-directed archive schedule.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Network Tab

Only the system administrator should change the parameters on this tab. System administrators should refer to "Network Tab" on page 104 for details on these parameters.

Troubleshooting Tab

Only the system administrator should change the parameters on this tab. System administrators should refer to "Troubleshooting Tab" on page 105 for details on these parameters.

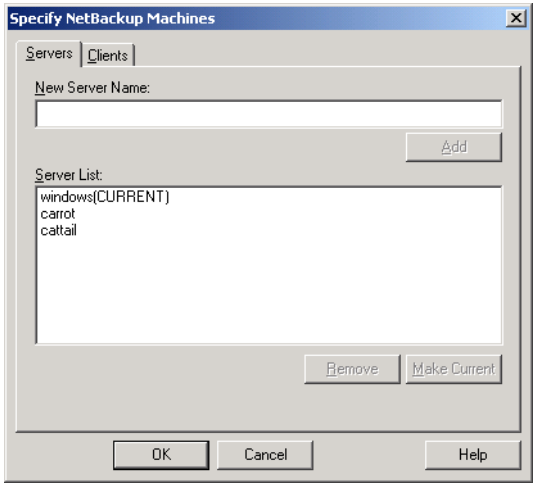
Specify NetBackup Machines and Policy Type Dialog Box

This section explains the tabs found in the Specify NetBackup Machines and Policy Types dialog box when using the Backup, Archive, and Restore interface for the client. To open this dialog box, choose **Specify NetBackup Machines and Policy Type** from the **File** menu.

For information on the tabs available when using the Backup, Archive, and Restore interface on the server, see "Specify NetBackup Machines and Policy Type Dialog Box for System Administrators" on page 93.

Servers Tab

Use this tab to add and remove NetBackup servers and to specify the current server to be used for user operations.



▼ To access the Servers tab

1. On the **File** menu, click **Specify NetBackup Machines and Policy Type**.
2. Click on the **Servers** tab.

New Server Name — To add another NetBackup server to the **Server List**, type the name of the new server in the **New Server Name** text box and click **Add**. The name must be as defined by the system administrator on that server.

If a new server is added to the list from this dialog box, it will appear in the server list for all windows currently opened and any new window that is opened. The new server will be saved in the **Server List** box after the current window is closed.

Add — Adds the server, entered in the **New Server Name** box, to the **Server List**.

Server List Shows the names of the NetBackup servers that require access to the client for scheduled backups, and any other servers used when performing user-directed backups. The master server and any remote media servers that perform scheduled backups of the client must appear in this list. The machine designated as CURRENT will be the server used for user-directed operations.

To mark a server as CURRENT, select a server from the **Server List** and click **Make Current**. The word CURRENT appears in parentheses beside the name.

Remove Removes a server. First highlight the server in the **Server List**, then click **Remove**.

Note The master server cannot be removed from the **Server List**. While other servers can be removed from the list, be careful not to remove any remote media servers. Doing so will prevent scheduled backups from being performed. For more information on making changes to the **Server List**, refer to the *NetBackup System Administrator's Guide, Volume I.*

Make Current First highlight the server in the **Server List**, then click **Make Current**. Changing the current server will affect only the selected window. This setting will not be saved after the currently selected window is closed.

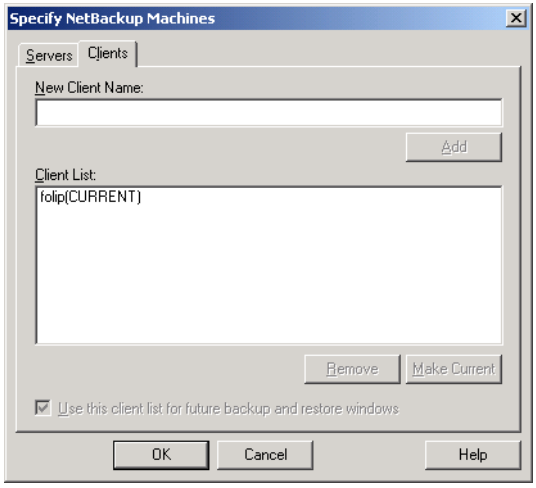
OK To accept changes to the parameters, click this button.

Cancel To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.

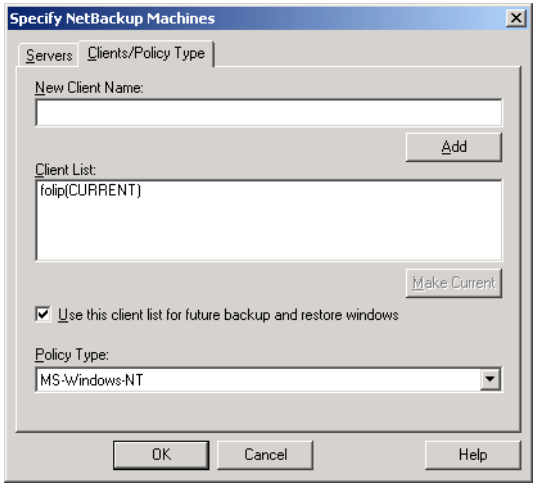
Help To view online help for this dialog box, click this button.

Clients Tab and Source Clients/Policy Type Tab

If the NetBackup Backup window is active when you open the Specify NetBackup Machines and Policy Type dialog box, the **Clients** tab is available:



If the NetBackup Restore window is active when you open the Specify NetBackup Machines and Policy Type dialog box, the **Source Clients/Policy Type** tab is available:



Use this tab to select the remote client whose backups you want to restore to your client. You can also add names of remote clients.

▼ To access the Clients/Policy Type tab

1. On the **File** menu, click **Specify NetBackup Machines and Policy Type.**
2. Click on the **Clients** tab or the **Source Clients/Policy Type** tab.

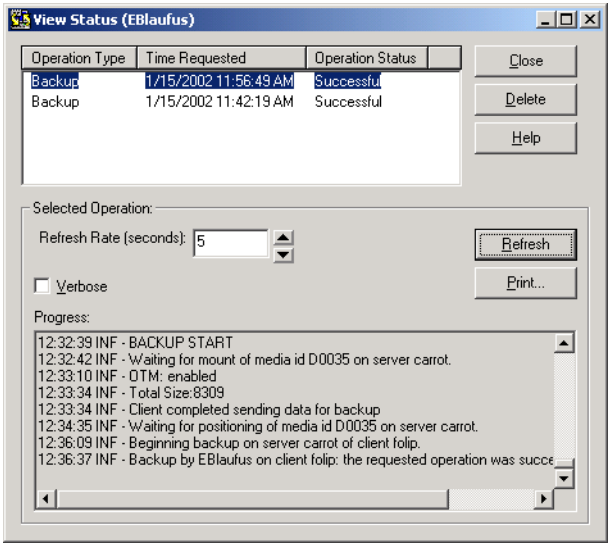
Note Most changes made to the this tab will not apply to currently open backup or restore windows. If, however, a client is added, the open windows will be able to switch to them.

New Client Name	To add another client name to the **Client List**, type the name of the client in the **New Client Name** box and click **Add**. The client name entered must also be defined in a policy on the NetBackup server. If a new client is added to the list it will be in the client list for all windows currently opened and any new window that is opened. The new client will be saved in the **Client List** box after the current window is closed.
Add	Adds the client, entered in the **New Client Name** box, to the **Client List**.
Client List	The **Client List** contains the client name for your computer. It can also contain the names of remote NetBackup clients. You can select local or remote NetBackup clients on which to perform NetBackup operations. The NetBackup server administrator must set up the required permissions before you can browse and restore from any remote client. To perform a NetBackup operation on a NetBackup client, select the name from the **Client List** and click **Make Current**. The word CURRENT appears in parentheses beside the name of the new default client.
Remove	Removes a client. First highlight the client in the **Client List**, then click **Remove**.
Make Current	Designates the client backup images you can browse for restore operations. First highlight the client in the **Client List**, then click **Make Current**. Changing the current client will affect only the selected window. This setting will not be saved after the currently selected window is closed.

Policy Type	(Only available when a restore window is the active window.) Specifies the policy type for the client selected in the **Client List**. The policy type must be the same as specified in the configuration for that client on the NetBackup server.
Use this client list for future backup and restore windows	(Only available when a restore window is the active window.) If selected, NetBackup applies any changes to the client list to all backup and restore windows opened after the tab modifications have been saved.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

View Status Dialog Box

Use this dialog box to view the results of each user operation in a progress report.



▼ To access the View Status dialog

❖ On the **File** menu, click **View Status**.

Note If a backup is split across more than one media ID, the **Status** lists all the media. NetBackup uses only what it needs to restore the requested files, folders, or registry keys.

Operations List	Lists operation status reports for NetBackup operations. The most current NetBackup operation is on top of the list. By default NetBackup operation status reports will be stored on the NetBackup client for three days. Refer to "General Tab" on page 62 for more information on changing the configuration setting called **Keep status of user-directed backups, archives, and restores for**.
Operation Type	Shows the type of NetBackup operation for the selected progress report: Backup, Archive, or Restore.
Time Requested	Shows the start date and time of the selected NetBackup operation. The format of the start date and time depends upon how the date and time display has been configured on the computer.
Operation Status	Shows the status of a NetBackup operation.
Close	Closes the dialog box. **Close** does not terminate NetBackup or affect other dialog boxes or windows.
Delete	Deletes the progress report selected in the Operations List. First select the progress report in the Operations List then click **Delete**. Operation status reports are automatically deleted after a specified number of days. The **Keep status of user-directed backups, archives, and restores for** parameter in the **General** tab in the NetBackup Client Properties dialog box specifies the number of days.
Help	To view online help for this dialog box, click this button.
Refresh Rate (seconds)	Changes the rate at which NetBackup updates the **Status** display for the selected operation. Recommended value is 10. This parameter can be set at any time during a NetBackup operation. A value of 0 turns off automatic refreshing.
Verbose	Displays a more detailed progress report for the selected NetBackup operation.
Refresh	Updates the status display for the selected NetBackup operation. **Refresh** is enabled when a NetBackup operation is selected from the Operations List.
Print	Opens the Microsoft Windows print dialog box and prints out the progress report for the selected NetBackup operation.

Progress

Displays the progress of the selected operation. If the **Refresh Rate (seconds)** parameter is set to 0, the user can click **Refresh** to view the progress of the selected NetBackup operation. Select **Verbose** for a more detailed progress report.

Each message begins with the time of the related event and an acronym that indicates the nature of the message (see below). **Operation Status** also lists all the media IDs used to store the data.

`DAT` Informational messages that are helpful in debugging.

`ERR` Error message

`FTL` Fatal error message

`INF` Informational message (no error occurred)

`TRV` Trivial error message

`WRN` Warning error message

Note If the drive on which NetBackup is installed is full, no progress messages are displayed except those indicating the job has been initiated and the job has been completed.

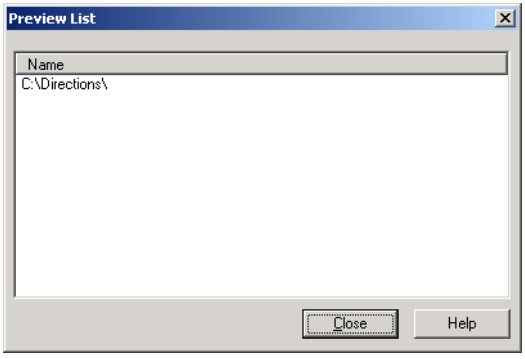
Preview List Dialog Box

Use this dialog box to view all of the files, folders, or registry keys you have marked. This is a view-only dialog box.

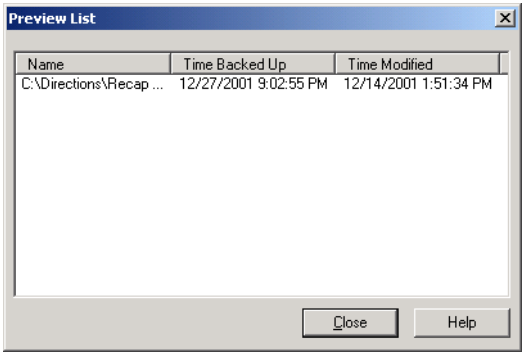
▼ To access the Preview List dialog

❖ From the **Edit** menu, select **Preview List of Marked Files**. The Preview List dialog box which appears depends upon whether the backup or restore window is the active window.

List of files to back up



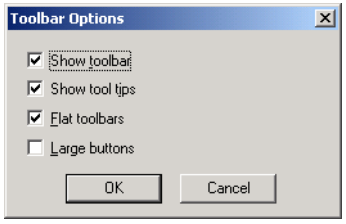
List of files to restore



Name	When a Backup window is open, a list of the files or folders to be backed up is displayed. When a Restore window is open, a list of the files or folders to be restored is displayed.
Time Backed Up	Lists the time the backup was initiated.
Time Modified	Lists the time at which the backed up file or directory was changed.
Close	Closes the dialog box. **Close** does not terminate NetBackup or affect other dialog boxes or windows.
Help	To view online help for this dialog box, click this button.

Toolbar Options Dialog Box

Use this dialog box to control display options on the Backup, Archive, and Restore interface.



▼ To access the Toolbar Options dialog

❖ On the **View** menu, click **Toolbar Options**.

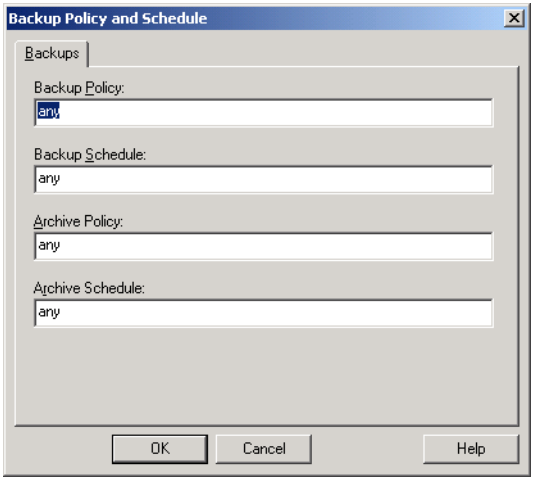
Show toolbar	Shows the NetBackup toolbars.
Show tool tips	Shows tool tips. When the mouse pointer moves over the different elements of the Backup, Archive, and Restore interface, the tool tips appear.
Flat toolbars	When selected, the main (or horizontal) toolbar buttons are displayed as two-dimensional buttons. If not selected, buttons are displayed as three-dimensional buttons.
Large buttons	When selected, large button icons and text are shown on the toolbar buttons. If not selected, only small icons are shown on the buttons.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.

Backup Policy and Schedule Dialog Box

This section explains the tab in the Backup Policy and Schedule dialog box.

Backups Tab

Use this tab to specify a specific policy and schedule to use when you start a backup from the client.



▼ **To access the Backups tab:**

1. Open a Backup window (**File** > **Select Files and Folders to Backup**).
2. On the **Actions** menu, click **Specify Policy and Schedule**.
3. Click the **Backups** tab.

Backup Policy Specify the policy to use for user-directed backups of this client. If you set this value to "any" (which is the default), NetBackup uses the first policy that it finds with both the client name and a user-directed backup schedule(s).

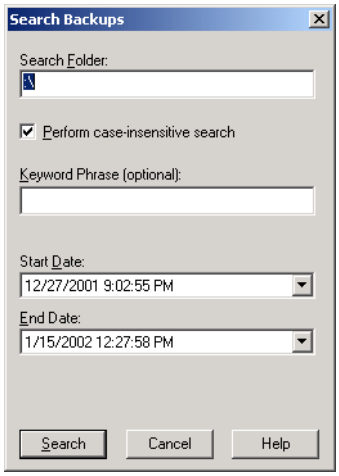
Backup Schedule Specify the schedule to use for the user-directed backups for this client. If you set this value to "any" (which is the default), NetBackup uses the first user-directed backup schedule in the first policy that it finds with both the client name and a user-directed backup schedule.

Archive Policy Specify the policy to use for user-directed archives of this client. If you set this value to "any" (which is the default), NetBackup uses the first policy that it finds with both the client name and a user-directed archive schedule.

Archive Schedule	Specify the user-directed archive schedule to use for user-directed archives of this client. If you set this value to "any" (which is the default), NetBackup uses the first user-directed archive schedule in the first policy that it finds with both the client name and a user-directed archive schedule.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Search Backups Dialog Box

Use this dialog box to narrow the backup history search parameters for a restore.



To access this dialog box:

1. Open a Restore window.
2. From the **Actions** menu, click **Search Backups**.

Search Folder

Shows the folder or registry key for which you are searching. The initial value for the **Search Folder** is ":\". If you select a folder in the NetBackup Restore window, that folder becomes the new default.

To change the path, enter a new value and press Return.

If you enter a full path name, NetBackup will search for the specific path and file in the selected backup images. Or you can enter only the filename (`csb.tmp` or `*.tmp`) and NetBackup will show, in the All Folders pane, the folders where the specified files were found.

You can use these wildcard characters:

*

?

Tip Before initiating a search, collapse the tree in the All Folders pane as much as possible. NetBackup will expand the tree to the folders that match your search criteria.

Perform case-insensitive search

Select **Perform case-insensitive search** to perform case-insensitive searches.

The search path is case sensitive and must match what is in the database on the NetBackup server. By default the checkbox is checked.

Keyword Phrase (optional)

Enter a keyword phrase associated with a backup image.

Start Date and **End Date**

View and select the **Start Date** and the **End Date**. The **Start Date** and **End Date** show the range of backups that NetBackup will search. By default, the start date will be the time of the last full backup and the end date will be the time of the most recent backup.

To change the dates, click in the box and select from the list of available backup images.

If you change the **Start Date** or **End Date**, NetBackup clears all the restore selections that you have previously made.

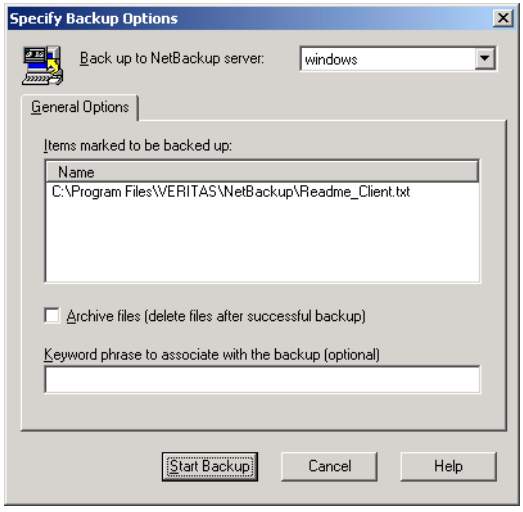
Search

Initiates a search for specified files, folders, or registry keys. The NetBackup Restore window will show the folders that match the search criteria.

Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Specify Backup Options Dialog Box

Use this dialog box to view your selections before proceeding with the operation.



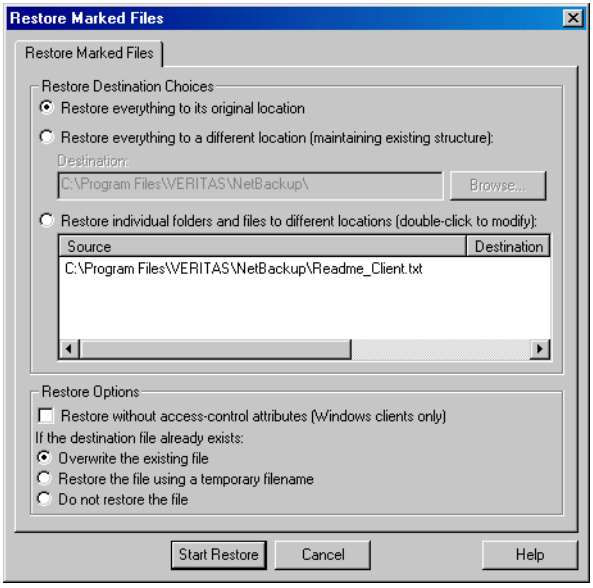
This dialog box displays after you have initiated a backup or archive by selecting **Start Backup of Marked Files** from the **Actions** menu.

Back up to NetBackup Server	To change the NetBackup server that will perform the backup operation, select another server from the drop-down list.
Items marked to be backed up	Contains a list of objects to be backed up.
Archive files (delete files after successful backup)	Select this option to perform an archive instead of a backup. Files or folders will be deleted after they have been backed up successfully.

Keyword phrase to associate with the backup (optional)	Specifies a keyword phrase, up to 128 characters in length, that NetBackup will associate with the image created by this backup operation. You can then restore the image by specifying the keyword phrase in the Search Backups dialog box. All printable characters are permitted including period (“.”). The default keyword phrase is the null (empty) string.
Start Backup	Initiates the backup or archive operation.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Restore Marked Files Dialog Box

This dialog box appears after you have initiated a restore operation by selecting **Start Restore of Marked Files** from the **Actions** menu.



Use this dialog box to view your selections before proceeding with the operation. If the list is longer than the list box, a vertical scroll bar appears along the right edge of the pane.

Restore Destination Choices — This pane contains radio buttons which determine the destination for restored files. The user must choose one of the radio buttons in the pane.

Restore everything to its original location — Restore files, folders, or registry keys to the folder from which they were backed up. This is the default.

Restore everything to a different location — Enter the folder to which you want to redirect the files, folders, or registry keys.

Destination — Enter the path to which the files, folders, or registry keys will be restored. This field is enabled when the **Restore everything to a different location** checkbox is selected.

By default, the lowest level folder common to all the items being restored appears in the **Source** box. If this is changed to a folder that only contains some of the items, only those items will be restored to the folder specified in the **Destination** box. All other items will be restored to their original location.

Browse — This button is enabled when the **Restore everything to a different location** checkbox is selected. Click this button to open the Browse for Folder dialog box. You can then select a destination folder.

Note You will be browsing the local machine where the Backup, Archive, and Restore interface is running, even if you are redirecting a restore to a different client.

Restore individual folders and files to different locations — Restore files, folders, or registry keys to a different path on a file by file, folder by folder, or registry key by registry key basis. The default is to restore to the original path.

Select this option, then double-click on an item in the list, and the Enter New Destination dialog box displays. In the new dialog box, you can either manually enter a new destination path, or click the **Browse** button to browse for a new destination path. If you click **OK**, that path then displays in the **Destination** field of the list for that item.

The individual items you marked for restore display in the **Restore individual folders and files to different locations** list box. If you mark a folder to be restored, that folder name, not the individual files, will appear in the list box. To be able to restore individual files to different locations, files must be selected individually.

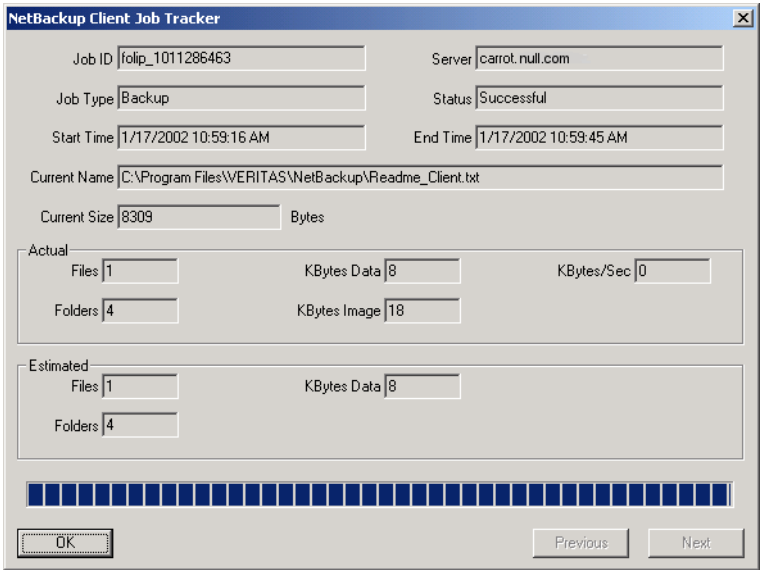
Restore Options	This pane contains radio buttons which specify how to restore files, folders, or registry keys onto a system which may contain files, folders, or registry keys with identical names. The user must choose one of the radio buttons in the pane.
Restore without access-control attributes (Windows clients only)	Restores the files and folders without the Windows access-control attributes. The user must have system administration privileges and the NetBackup server and client software must support restore without access-control attributes.
Overwrite the existing file	Overwrites existing files, folders, or registry keys. The default is to not overwrite. In this mode, the restore does not occur if the files, folders, or registry keys exist.
Restore the file using a temporary filename	NetBackup will rename a file so as not to copy over an existing file. NetBackup will restore the item to `filename`*`XXXXXX`*`.TMP`, where filename is the name of the file being restore and *`XXXXXX`* is generated based on the current date and time. This option is only valid when the restore has been requested by, and performed on, the same machine. This option is not supported by server-directed restores.
Do not restore the file	This is the default.
Start Restore	Initiates the restore operation.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

NetBackup Client Job Tracker Dialog Box

NetBackup Client Job Tracker's purpose is to inform the user that a backup or restore is being done on the client machine. The NetBackup Client Job Tracker gives an estimate of the size of the job. It is not intended to replace the View Status dialog box available through the Backup, Archive, and Restore interface or the Activity Monitor available through the NetBackup Server.

Job Tracker only reports on the status of a backup, archive, or restore as it is running on the client. Once a backup is sent to the NetBackup Server, it will not update the status of that job. For example, the client sends all of the data to be backed up to the server

successfully. It reports the backup status as Successful. If at a later time an error occurs on the server which causes the backup to fail, the status shown by the Job Tracker is not updated.



▼ To access the NetBackup Client Job Tracker dialog

1. Start the NetBackup Client Job Tracker by clicking the Windows **Start** menu, then clicking **Programs > VERITAS NetBackup > NetBackup Client Job Tracker**.

   When the NetBackup Client Job Tracker has been started, the NetBackup Client icon displays in the system tray.

2. Right-click on the NetBackup Client icon in the system tray to display the Job Tracker menu.

3. Click the **Start NetBackup Client Service** menu option if it is available. If this menu option is disabled, the Job Tracker service has already been started.

4. If the **Details** option is disabled, there have not been any backups or restores since the NetBackup Job Tracker was started.

5. Perform either a backup or restore, then right-click on the NetBackup Client icon in the system tray to display the Job Tracker menu, then choose the **Details** menu option to display the NetBackup Client Job Tracker dialog box.

Once the NetBackup Client Job Tracker is started, it reports on server-directed operations, scheduled operations, and user operations. When the NetBackup Client Job Tracker is shut down, it "forgets" about the jobs it has been tracking (this includes logging off the system).

Job ID	Displays the NetBackup Job ID.
Server	Displays the name of the server to which the file was backed up.
Job Type	Shows the type of NetBackup operation for the selected job: backup, archive or restore.
Status	Displays the progress of the selected operation.
Start Time	Displays the time the NetBackup operation started.
End Time	Displays the time the NetBackup operation stopped.
Current Name	Displays the name of the file currently being backed up, archived, or restored.
Current Size	Displays the size (in bytes) of the file currently being backed up, archived, or restored.
Actual	Displays the status of the NetBackup operation.
Files	Displays the number of the files currently backed up, archived, or restored.
Folders	Displays the number of folders backed up. A folder is counted each time a file or sub folder contained in the folder is backed up.
KBytes Data	Displays the amount of data, in kilobytes, currently backed up, archived, or restored. This is rounded to the nearest whole number, so it is possible this number may be 0 if the number of bytes being backed up is less then 500.
KBytes Image	Displays the current size, in kilobytes, of the image backed up or archived.
KBytes/Sec	Displays the rate of the NetBackup operation in kilobytes per second.
Estimated	Displays an estimate of the finished NetBackup operation.
Files	Displays the total number of files to be processed by the NetBackup operation.
Folders	Displays the number of folders being backed up. A folder is counted each time a file or sub folder contained in the folder is backed up.
KBytes Data	Displays the total amount of data, in kilobytes, to be processed by the NetBackup operation. This is rounded to the nearest whole number, so it is possible this number may be 0 if the number of bytes being backed up is less then 500.

OK	Closes the NetBackup Client Job Tracker dialog box.
Previous	Shows the operating status of the previous NetBackup operation in the queue.
Next	Shows the operating status of the next NetBackup operation in the queue.

System Administrators A

This section contains information for the NetBackup Administrator.

Free Browse

The Free Browse feature allows users without restore privileges to restore from scheduled backups. In previous versions of NetBackup, when a scheduled backup was performed by a system administrator using a root user id, the client user was not able to restore from that backup. The Free Browse feature allows the user to use a scheduled backup to restore files. The user will be able to restore only those files to which they have write access.

There are three different settings: Use, Deny, and Allow.

- When the client is set to Use, the user will be allowed to browse scheduled backups if the NetBackup server is set to Allow or Use.
- When the client is set to Deny, the user will not be allowed to browse backups no matter how the NetBackup server is configured.
- When the client is set to Allow, the user will be able to browse scheduled backups if the NetBackup server is set to Use.

The NetBackup master server setting is configured using the `bpclient` command.

Note By default, the NetBackup master server setting is set to Allow.

- To set Use:

  `bpclient <clientname> -free_browse 2`

- To set Deny:

  `bpclient <clientname> -free_browse 1`

- To set Allow:

  `bpclient <clientname> -free_browse 0`

❖ To verify the configuration:

```
bpclient <clientname> -L
```

The following table displays the different combinations.

NetBackup Client	NetBackup Server	Use 'Free Browse'
Deny	Deny	No
Deny	Allow	No
Deny	Use	No
Allow	Deny	No
Allow	Allow	No
Allow	Use	Yes
Use	Deny	No
Use	Allow	Yes
Use	Use	Yes

The Free Browse feature will only be used when either the NetBackup client or the NetBackup server has been configured to Use it, and neither have been set to Deny it. By default, all users get the Allow privilege.

In order to use the feature on the client, a registry key needs to be created for Use and Deny using the Windows `regedt32.exe` utility. A registry key does not need to be set up for Allow, as Allow acts as the default.

▼ To configure Free Browse on a client

1. Use the registry editor to create the following two keys.

```
'HKEY_LOCAL_MACHINE\
   SOFTWARE\
      VERITAS\
         NetBackup\
            CurrentVersion\
               Security\
                  FreeBrowse\
                     Use'
```

and

```
'HKEY_LOCAL_MACHINE\
   SOFTWARE\
      VERITAS\
```

```
NetBackup\
   CurrentVersion\
      Security\
         FreeBrowse\
            Deny'.
```

2. Set the user share permissions on each key.

3. Enter a data value for each key with the name of Flag (type = DWORD). Only when a key has a non-zero Flag value will that privilege be turned on. If both of the Flag values are zero, then all users will get the Allow privilege.

   For example:

Deny/Use Key Values and Privileges Given to User

Deny Key	Use Key	Deny Key Flag value	Use Key Flag value	Privilege
Read access	--	non-zero	--	Deny
--	Read access	--	non-zero	Use
Read access	Read access	non-zero	non-zero	Use
Read access	Read access	non-zero	zero	Deny
No access	No access	--	--	Allow

Restore without Access-Control Attributes

Usually, files and directories on Microsoft Windows systems are restored with their access-control attributes. System administrators can restore files and directories without their access-control attributes under the following conditions:

- The operating system of the computer on which the client software resides is Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003.
- The computer on which the client software is running also must have Netbackup server software installed.

If restore without access-control attributes is supported on the client system, the **Restore Marked Files** dialog will include an active **Restore without access-control attributes (Windows clients only)** option. By default, both data and ACLs are restored. To restore files without restoring the access-control attributes, select **Restore without access-control attributes**.

The NetBackup master server, media server, and client all must be at the same release level so you can restore without access-control attributes.

Redirecting a Restore to a Different Client

The administrator on the NetBackup master server can use the Backup, Archive, and Restore interface on that server to direct a restore to any client of the same type that backed up the files. However, it is not possible to perform a server-directed restore through a database extension product such as NetBackup for Oracle.

Policy Type Settings

When redirecting from or to a different client, the source and destination clients must be of same type. For the appropriate policy type, see the following table:

Policy Settings for Clients

Client	Policy
UNIX	Standard
Microsoft Windows NT, 2000, XP, Server 2003	MS-Windows-NT
NetWare Target	Standard
NetWare Non-Target	NetWare

Restore Path Formats

When redirecting a restore to a different client, the appropriate path format must be used when specifying the source and destination information. Refer to the following table:

Restore Path Formats

Client	Path Format	Example
UNIX	directory:\	usr:\openv\netbackup\
Microsoft Windows	drive:\directory\	c:\Veritas\NetBackup\
NetWare NonTarget	drive:\directory\	c:\Veritas\NetBackup\
NetWare Target	/target/volume/data_path	/SYS/MARGE/veritas/netbackup/

Redirecting a Restore from a Backup Exec Image

When redirecting a restore from a Backup Exec image, the redirection path format is the same as for NetBackup image restores. NetBackup does not support restoring Backup Exec Netware non-SMS backups created using the Netware redirector.

Redirecting a Restore to a Different Client

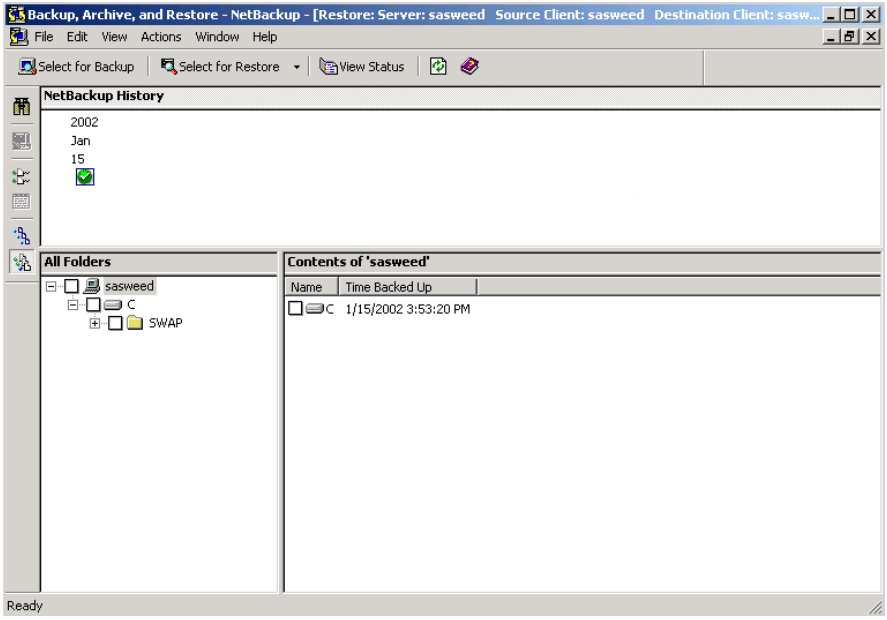
To redirect a restore to a different client, use the following procedure.

▼ To restore files to a different client (server-directed restore)

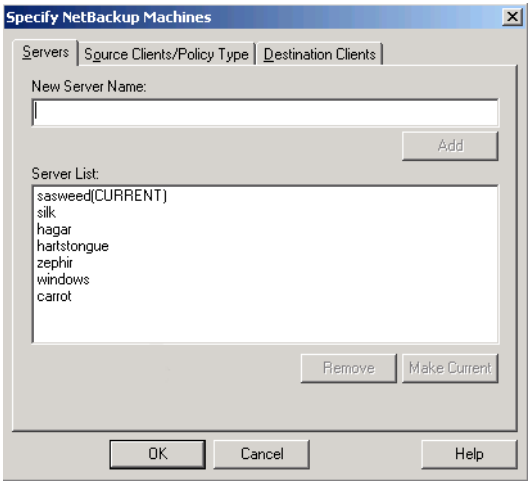
1. Log on to the master server as administrator.
2. Start the NetBackup Administration Console.
3. On the **File** menu, click **Backup, Archive, and Restore**.

   The Backup, Archive, and Restore interface opens.
4. On the **File** menu, point to **Select Files and Folders to Restore** and click on the type of restore desired from those listed.

The Restore window displays.

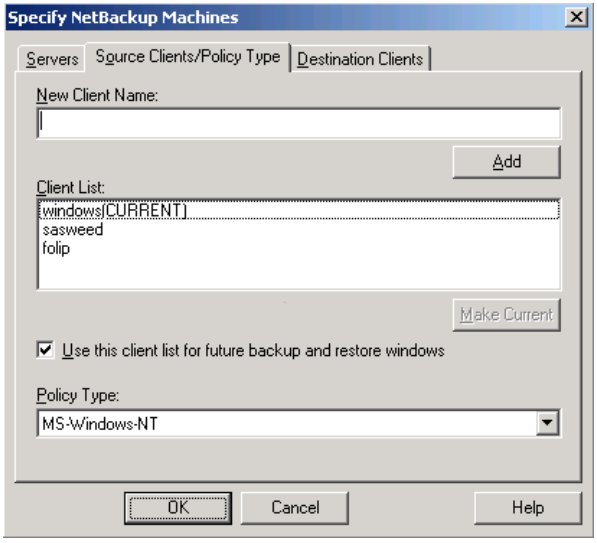


5. On the **File** menu, click **Specify NetBackup Machines and Policy Type**.



6. On the **Servers** tab, select the server that you are using and click **Make Current**. In this example, sasweed was selected.

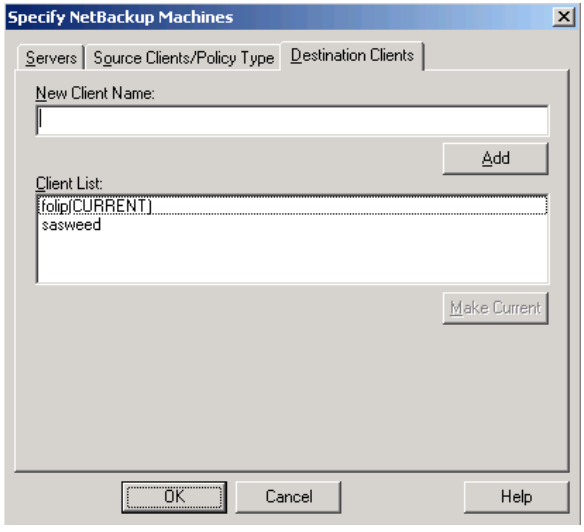
7. Click on the **Source Clients/Policy Type** tab.



   a. Select the client whose backup image you are going to restore files from and click **Make Current**. In this example, windows was selected.

   b. Select the policy type for the images that you are going to browse. Refer to the Table, "Policy Settings for Clients" on page 88.

8. Select the **Destination Clients** tab.



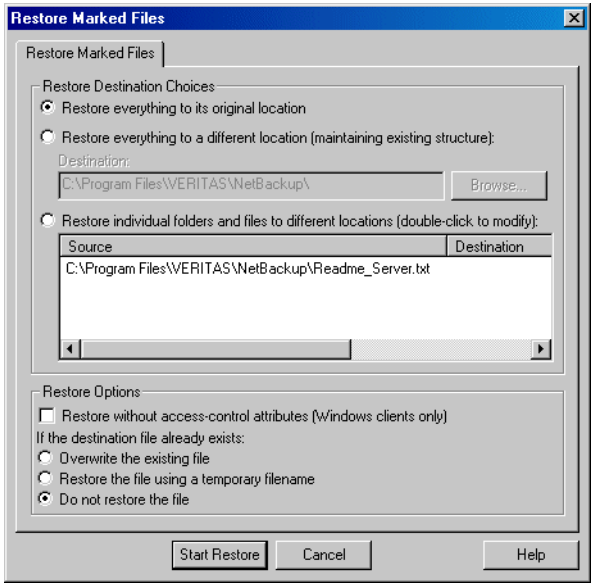
c. Select the client to which you are going to restore the files and click **Make Current**. In this example, folip was selected.

d. Click **OK**.

9. In the NetBackup Restore window, select the files for restore.

10. On the **Actions** menu, click **Start Restore of Marked Files**.

The Restore Marked Files dialog appears.



11. Select the desired option from the Restore Destination Choices.

For more information on redirecting restores to different paths, see "Redirecting Files to a Different Path" on page 28.

The paths in the **Source** and **Destination** boxes must use the formats required by the clients as shown in the table "Restore Path Formats" on page 89.

In this example, we are restoring a file from one Windows client (windows) to another Windows client (folip) and specifying the destination path on folip.

12. Select the desired restore options.

For more information on restoring to a temporary file, see "Restoring Using a Temporary Filename" on page 32.

13. Click **Start Restore**.

Preventing Server-Directed Restores

To prevent server-directed restores, either add or delete settings on the client as specified in the table below.

Client Type	Location of Setting	To Prevent Server-directed Restores
Microsoft Windows	**General** tab in NetBackup Client Properties dialog box on the client (click **NetBackup Client Properties** on the **File** menu to display this dialog box)	Clear **Allow server-directed restores** box
UNIX	`/usr/openv/netbackup/bin/bp.conf`	Add `DISALLOW_SERVER_FILE_WRITES`
NetWare (Target and Non-Target)	**General** tab in NetBackup Configuration dialog box on the client (click **Configure** on the **Actions** menu to display this dialog box)	Clear **Allow server-directed restores** box

Specify NetBackup Machines and Policy Type Dialog Box for System Administrators

When the current window is a Restore window and the Specify NetBackup Machines and Policy Type dialog is opened on a NetBackup server, the following tabs are available:

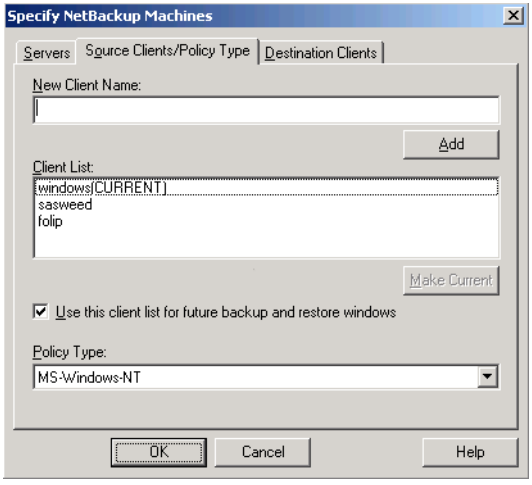
- Servers
- Source Clients/Policy Type
- Destination Clients

Servers Tab

Refer to “Servers Tab” on page 66 for more information.

Source Clients/Policy Type Tab

Use this tab to select the client whose backups you want to restore. Files or folders that were backed up or archived from one NetBackup client can be restored to a different NetBackup client. This is called a redirected restore to a different client.



▼ To access the Source Clients/Policy Type tab

1. Make a Restore window active.
2. On the **File** menu, click **Specify NetBackup Machines and Policy Type**.
3. Click the **Source Clients/Policy Type** tab.

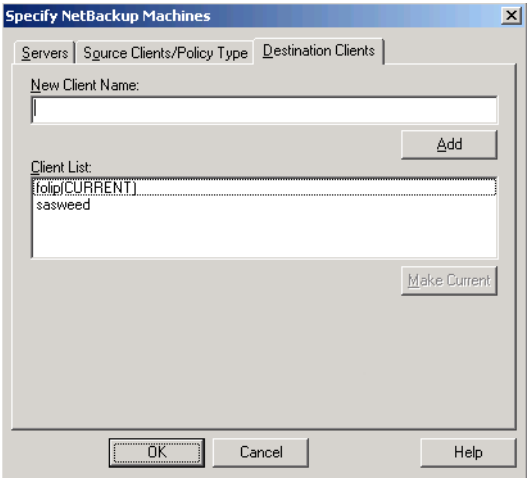
The NetBackup master server must be configured to allow restores to be redirected to different clients. (Refer to the section on server-directed restores in the *NetBackup System Administrator's Guide, Volume I* for details.)

For information on file permissions required, see "File Permissions Required By NetBackup" on page 6.

New Client Name	To add another client name to the **Client List**, type the name of the client in the **New Client Name** box and click **Add**. The client name entered must also be defined in a policy on the NetBackup server. If a new client is added to the list it will be in the client list for all windows currently opened and any new window that is opened. The new client will be saved in the **Client List** box after the current window is closed.
Add	Adds the client entered in the **New Client Name** box to the **Client List**.
Client List	The **Client List** shows the names of the NetBackup clients that your client can access. To change the name of the client whose backups you can browse for files to restore, select a name from the **Client List** and click **Make Current**. The word CURRENT displays in parentheses beside the name of the new source client.
Make Current	Designates the client backup images you can browse for restore operations. First highlight the client in the **Client List**, then click **Make Current**. Changing the current client will affect only the selected window. This setting will not be saved after the currently selected window is closed.
Use this client list for future backup and restore windows	If selected, NetBackup applies any changes to the client list to all backup and restore windows opened after the tab modifications have been saved.
Policy Type	View and select a policy type for the client selected in the **Client List**. The policy type must be the same as specified for the client in the NetBackup configuration on the NetBackup server.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Destination Clients Tab

Use this tab to select the client which will receive the restored backups. Restoring files to another client is a type of server-directed restore.



▼ To access the Destination Clients tab

1. Make a Restore window active.
2. On the **File** menu, click **Specify NetBackup Machines and Policy Type**.
3. Select the **Destination Clients** tab.

The NetBackup master server must be configured to allow restores to be redirected to different clients. (Refer to the section on server-directed restores in the *NetBackup System Administrator's Guide, Volume I* for details.)

For information on file permissions required, see "File Permissions Required By NetBackup" on page 6.

A client can prohibit server-directed restores by clearing the **Allow server-directed restores** option on the **General** tab in the **NetBackup Client Properties** dialog box. See "General Tab" on page 62.

New Client Name	To add another client name to the **Client List**, type the name of the client in the **New Client Name** box and click **Add**. The client name entered must also be defined in a policy on the NetBackup server. If a new client is added to the list it will be in the client list for all windows currently opened and any new window that is opened. The new client will be saved in the **Client List** box after the current window is closed.
Add	Adds the client entered in the **New Client Name** box to the **Client List**.
Client List	The **Client List** shows the names of the NetBackup clients that your client can access. To change the name of the client whose backups you can browse for files to restore, select a name from the **Client List** and click **Make Current**. The word CURRENT displays in parentheses beside the name of the new source client.
Make Current	Designates the client that will receive the restore operations. First highlight the server in the **Client List**, then click **Make Current**. Changing the current client will affect only the selected window. This setting will not be saved after the currently selected window is closed.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

NetBackup Client Properties Dialog Box

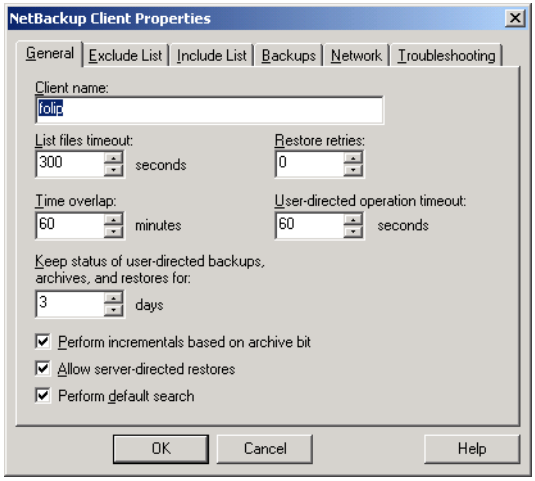
This section contains information on the NetBackup Client Properties dialog box for the system administrator.

Configuration information resides in the following registry key:

```
\HKEY_LOCAL_MACHINE\Software\VERITAS\NetBackup\CurrentVersion\Config
```

General Tab

Use this tab to set any of the configuration parameters for your client.



▼ To access the General tab

1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **General** tab.

Client name This parameter should be changed only by a system administrator. Specify the NetBackup client name of your client. This name is used when backing up, archiving and restoring files, folders, or registry keys. The client name in the NetBackup server policy configuration must match the client name specified here.

List files timeout This parameter should be changed only by a system administrator. Specify the number of seconds to wait for a response from the NetBackup master server when listing files. If this amount of time is exceeded, the user receives the "socket read failed" error even if the server is still processing the user's request.

The default is 300 seconds. The minimum setting is 0. The maximum setting is 36,000 seconds.

Restore retries This parameter should be changed only by a system administrator. Specify the number of times to retry a restore after a failure.

The default is 0, which is no retries. The maximum setting is 3.

Time overlap

This parameter should be changed only by a system administrator. Specify the extra number of minutes to add to the date range for incremental backups when using date-based backups. This value can be used to compensate for differences in the speed of the clock between the client and NetBackup server.

The default is 60 minutes. The minimum setting is 0. The maximum setting is 1,440 minutes.

User-directed operation timeout

Specify the number of seconds to wait for a response from the NetBackup master server when performing user-directed operations. If this amount of time is exceeded, the user receives the "socket read failed" error even if the server is still processing the user's request.

The default is 60 seconds. The minimum setting is 0. The maximum setting is 32,400 seconds.

Keep status of user-directed backups, archives, and restores for

Specify the number of days to store progress reports before the system will automatically delete them.

Default is 3 days. The minimum allowable value is 0. The maximum is 9,999.

Perform incrementals based on archive bit

This parameter should be changed only by a system administrator. Select this check box to have NetBackup include files in an incremental backup only if their archive bit is set. The system sets this bit whenever a file is changed and it will remain set until NetBackup clears it. A full backup always clears the archive bit. A differential-incremental backup clears the archive bit if all files are successfully backed up within the number of seconds indicated by the `Clear_Archive_Bit_Incr_Wait` parameter. A cumulative-incremental backup or user backup has no effect on the archive bit.

Clear this checkbox to have NetBackup include a file in an incremental backup only if the file's datetime stamp has been changed since the last backup. For a cumulative-incremental backup, NetBackup compares the file's time stamp against the last full backup. For a differential-incremental backup, NetBackup compares the time stamp against the last full backup or incremental backup.

If you install or copy files from another computer, the new files retain the datetime stamp of the originals. If the original date is before the last backup date on this computer, then the new files will not be backed up until the next full backup, whichever is most recent.

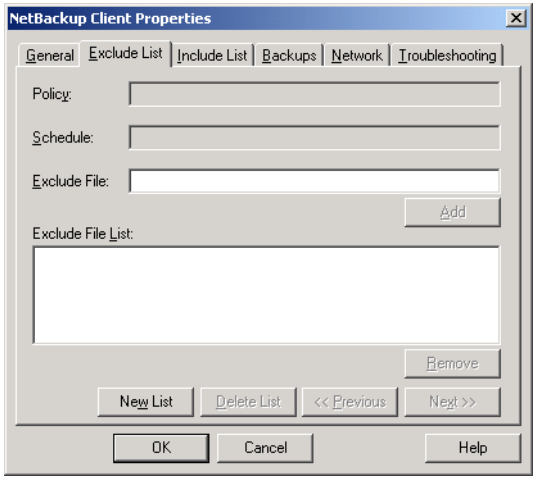
Allow server-directed restores	This parameter should be changed only by a system administrator. Select this check box to let the administrator on the NetBackup server initiate restores to this client. The default is to allow server-directed restores.
Perform default search	If selected, NetBackup will automatically search the default range of backup images and display the backed up folders and files whenever a restore window is opened. Clear this box to disable the initial search. The NetBackup Restore window will not show any files or folders when initially opened. Clicking a backup image, or selecting a range of backup images, will initiate a search. By default, this box is selected.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Exclude List Tab

Use this tab to view and change the list of files to exclude from a master server directed backup. For example, if you add `C:\*.bat` to the **Exclude File List**, all files with a `.bat` extension that appear in the root of the `C:` drive will not be backed up. Exclude lists only apply to full backups, cumulative-incremental backups, and differential-incremental backups initiated by the NetBackup server. Refer to "Syntax Rules for Exclude and Include Lists" on page 107 for more details.

Exclude lists can be created for specific policies and schedules. The first exclude list has the policy and schedule disabled. The list cannot be deleted, but it can be empty.

Note Only the system administrator should change the parameters on this tab.



▼ To access the Exclude List tab

1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **Exclude List** tab.

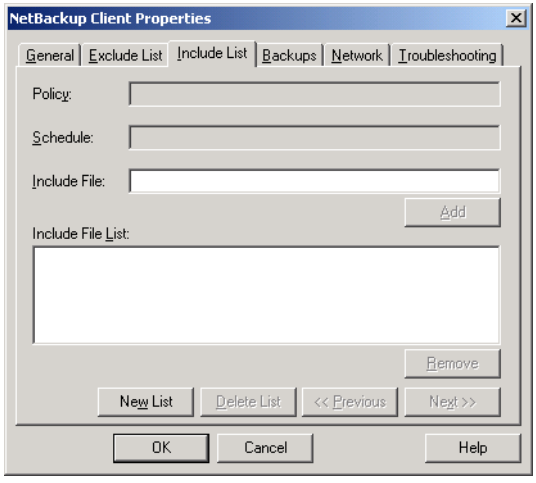
Policy	The **Exclude File List** applies only to server-directed backups for the specified policy. To create an exclude list with a different policy and schedule combination, click the **New List** button.
Schedule	The **Exclude File List** applies only to server-directed backups for the specified schedule. This requires that a policy be specified. To create an exclude list with a different policy and schedule combination, click the **New List** button.
Exclude File	Enter the file or folder that you want to exclude in the list box. Click **Add** to move the file or folder to the **Exclude File List**. The exclude list is case sensitive unless the `case_sensitive_exclude_list` data value in the registry is set to `no`.
Add	Click this button to add a file or folder to the **Exclude File List**.
Exclude File List	The file list applies only to scheduled backups. It shows the names of the files that will be excluded in a scheduled backup. To remove a file from the list, select the name and click **Remove**.
Remove	Click this button to remove a selected file or folder from the file list.

New List	Use this button to create a new list with a policy and schedule. Duplicates of policy and schedule are not allowed.
Delete List	Use this button to delete the current list.
Previous	Use this button to view the previous list.
Next	Use this button to view the next list.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Include List Tab

Use this tab to make exceptions to the list of files that are excluded from a server-directed backup (those files listed in the Exclude List). For example, if you want to exclude all files with a `.bat` extension *except* the `autoexec.bat` file from backups, you would add `*.bat` to the Exclude File List and `autoexec.bat` to the Include File List. Include lists only apply to backups initiated by the NetBackup master server. Refer to "Syntax Rules for Exclude and Include Lists" on page 107 for details.

Include lists can be created for specific policies and schedules. The first include list has the policy and schedule disabled. The list cannot be deleted, but it can be empty.



Note Only the system administrator should change the parameters on this tab.

▼ To access the Include List tab

1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **Include List** tab.

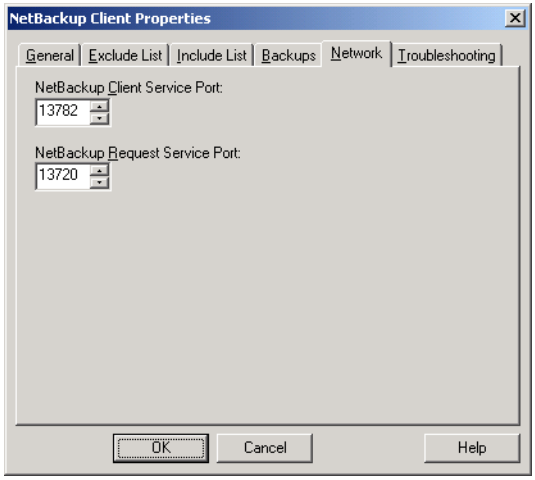
Policy	Enter the name of the policy. The name must match the policy name on the master server. To create an include list with a different policy and schedule combination, click the **New List** button. The **Include File List** applies only to server-directed backups for the specified policy.
Schedule	Enter the name of the schedule. The name must match the schedule name on the master server. To create an include list with a different policy and schedule combination, click the **New List** button. The **Include File List** applies only to server-directed backups for the specified schedule. This requires that a policy be specified.
Include File	Enter the file or folder that you want to include in the list box. Click **Add** to move the file or folder to the **Include File List**. The include list is case sensitive unless the `case_sensitive_exclude_list` data value in the registry is set to `no`.
Add	Click this button to add a file or folder to the **Include File List**.
Include File List	The file list applies only to scheduled backups. It shows the names of the files that will be included in a scheduled backup. To remove a file from the list, select the name and click **Remove**.
Remove	Click this button to remove a selected file or folder from the file list.
New List	Use this button to create a new list with a policy and schedule. Duplicates of policy and schedule are not allowed.
Delete List	Use this button to delete the current list.
Previous	Use this button to view the previous list.
Next	Use this button to view the next list.
OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Backups Tab

For information on this tab, see “Backups Tab” on page 64.

Network Tab

Use this tab to view and change the port numbers used during communications between your client and the NetBackup master server.



Note Only the system administrator should change the parameters on this tab.

▼ To access the Network tab

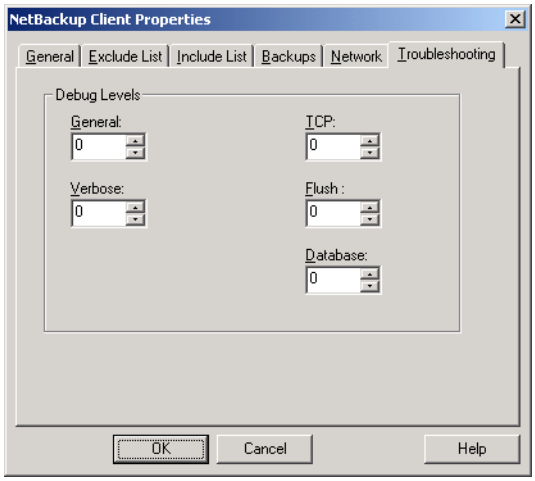
1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **Network** tab.

NetBackup Client Service Port	Specify the port the NetBackup server uses to communicate with the NetBackup client. The default is 13782.
NetBackup Request Service Port	Specify the port to which the client should send requests to the NetBackup request service, `bprd`, on the NetBackup server. The default is 13720.

OK	To accept changes to the parameters, click this button.
Cancel	To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.
Help	To view online help for this dialog box, click this button.

Troubleshooting Tab

Use this tab to view and change the amount of information that NetBackup saves in its debug/troubleshooting logs. NetBackup only creates log files if the log folders are created. See "Troubleshooting Logs" on page 106 for more details. Also see the *NetBackup Troubleshooting Guide for UNIX* and *Windows* for information on using these logs.



Note Only the system administrator should change the parameters on this tab.

▼ To access the Troubleshooting tab

1. On the **File** menu, click **NetBackup Client Properties**.
2. Click the **Troubleshooting** tab.

General	Controls the amount of information that NetBackup writes to the troubleshooting logs. Supported values are 0, 1, or 2. The higher the level, the more information that is written. The default is 0.

Verbose Verbose controls the amount of information that the NetBackup server writes to its logs. This parameter is only in effect when the local machine (where the NetBackup client is being run) is also a NetBackup server.

Supported values are:

0 No extra logging. This is the default.

1- 99 Verbose logging.

Use the default setting of 0 unless advised otherwise by VERITAS Technical Support.

TCP Enables TCP debugging. Supported values are:

0 No extra logging. This is the default.

1 Log basic TCP/IP functions.

2 Log all TCP/IP functions, including all read and write requests.

3 Log contents of each read/write buffer.

Note: Setting **TCP** to 2 or 3 can cause the status reports to be very large. It can also slow the performance of a backup or restore operation.

Flush NetBackup periodically flushes the progress reports on NetBackup operations. This setting specifies the frequency of the flushes or how often the internal buffer gets written to the progress report. The higher the flush level, the more often the buffer is written to the file. Supported values are 0, 1 or 2. The default is 0.

Database Controls the amount of information the NetBackup Database Extensions write to their log files.

Supported values are 0 through 9. The higher the level, the more information is written. The default is 0.

OK To accept changes to the parameters, click this button.

Cancel To cancel and return to the previous display without accepting changes to the parameters in this dialog box, click this button.

Help To view online help for this dialog box, click this button.

Troubleshooting Logs

NetBackup will generate troubleshooting logs only if you create the following folders on your client.

(This assumes that your install directory is `C:\Program Files\VERITAS`)

```
C:\
    \Program Files
      \VERITAS
        \NetBackup
          \logs
            \BPBKAR
            \BPCD
            \BPINETD
            \NBWIN
            \TAR
```

All log files use the format `yymmdd.LOG`.

`BPBKAR`	Log files in this folder contain information about user-directed and server-directed backups.
`BPCD`	Log files in this folder have information useful for troubleshooting communications between your NetBackup client and the NetBackup server.
`BPINETD`	Log files in this folder have information on the NetBackup Client Service operation.
`NBWIN`	Log files in this folder have information on user operations.
`TAR`	Log files in this folder contain information about user-directed and server-directed restores.

Note If you use Notepad to view the log files, the file will appear as one long line. Wordpad recognizes the line breaks and properly displays the lines.

Syntax Rules for Exclude and Include Lists

Syntax Rules

The following syntax rules apply to exclude lists and include lists.

- Only one pattern per line is allowed.
- The following meta or wildcard characters are recognized:

  [ ]

  ?

  *

- To use the wildcard characters literally (that is, as non wildcard characters), precede them with a backslash (\). For example, assume that the brackets in the following example are not being used as wildcards:

  ```
  \home\abc\fun[ny[name
  ```

  In your exclude list, precede the brackets with a backslash as in

  ```
  \home\abc\fun\[ny\[name
  ```

  to have NetBackup interpret the brackets literally.

Note Note that a backslash (\) acts as an escape character only when it precedes a wildcard as in the above example. This means that NetBackup normally interprets a backslash literally and it is a legal character to use in pathnames.

- Spaces are considered legal characters. Be careful to omit extra spaces unless they are part of the file name.

  For example, if you want to exclude a file named

  `C:\home\testfile` (with no extra space character at the end)

  and your exclude list entry is

  `C:\home\testfile` (with an extra space character at the end)

  NetBackup will not be able to find the file until you delete the extra space from the end of the file name.

- End a file path with \ to exclude only folders with that path name (for example, `C:\home\test\`). If the pattern does not end in \ (for example, `C:\usr\test`) NetBackup excludes both files and folders with that path name.
- To exclude all files with a given name, regardless of their folder path, just enter the name without a preceding slash. For example:

  ```
  test
  ```

  rather than

  ```
  C:\test
  ```

  This is equivalent to prefixing the file pattern with

  `C:\`

  `C:\*\`

  `C:\*\*\`

  `C:\*\*\*\`

  and so on.

Example of an Exclude List

If an exclude list has the following entries:

```
C:\home\doe\john

C:\home\doe\abc\

C:\home\*\test

C:\*\temp

temp
```

the following are excluded from server-directed backups:

- The file or folder named `C:\home\doe\john`.
- The folder `C:\home\doe\abc` (because the exclude entry ends with `\`).
- All files or folders named `test` that are two levels below home.
- All files or folders named `temp` that are two levels below the root.
- All files or folders named `temp` at any level.

User-Directed Archive Operations (NTFS5 and later)

The following subsections document the restrictions when performing user-directed archive operations on NTFS 5.0 and later file systems.

Mount Points

NetBackup will not enter mount points encountered in an archive operation. Instead, the mount point will be unmounted and the then empty folder deleted. If an archive operation starts inside a mounted volume (not at the root), the target items will be removed.

For example, assume that a file structure exists as follows: `MountPoint` is a volume mount point and `d2` and is an object in the mounted volume.

```
c:\d1\MountPoint\d2
```

Depending on what is archived, the following may occur:

- Archiving `c:\d1` results in an unmount of `MountPoint` and its removal, along with any other objects in `c:\d1`. Nothing in the mounted volume is deleted.
- Archiving `c:\d1\MountPoint\d2` results in the deletion of `c:\d1\MountPoint\d2` and any non-mount point children of `d2`.

Single Instance Store (SIS)

NetBackup will not delete any items in the Common Store for Single Instance Store volumes. If requested, links can be deleted, and the SIS manager will determine whether or not to delete corresponding Common Store items.

Windows Open File Backup

On Windows clients, NetBackup provides open file backup functionality. You can use either the VERITAS Volume Snapshot Provider (VSP) or the Microsoft Volume Shadow Copy Service (VSS) to back up open and active files, depending on the Windows systems in your environment:

- VSP is supported on Windows NT, Windows 2000, Windows XP, and Windows Server 2003 systems.
- VSS is supported on Windows Server 2003 systems.

Windows open file backups establishes a point-in-time view, or snapshot, of the data that is selected for backup on the volumes (that is, drives). NetBackup then backs up the selected files as they existed at the time of the snapshot, regardless of file system activity.

Windows open file backups maintains existing relationships between files. For example, assume that keywords in files A and B must be synchronized for an application to function properly. Without open file backups functionality, if A is backed up but B is changed before it is backed up, the two files are not synchronized after a restore and the application will not function. Windows open file backups prevents such problems from occurring.

System administrators use the NetBackup Administration Console to set the Windows open file backups parameters that define the behavior of open file backups on the clients. For information about using the NetBackup Administration Console to set the Windows open file backups parameters, see the *NetBackup System Administrator's Guide, Volume I*.

Index

A

access control lists 4
accessibility features xiv
Actions menu 47
  Add to Exclude List 48
  Add to Include List 48
  Administer Oracle Templates 48, 50
  Archived Backups 49
  Backup Exec Backups 50
  Configure 43
  Normal Backups 49
  Proxy Archived Backups 50
  Proxy Normal Backups 50
  Proxy Raw Partition Backups 50
  Proxy True Image Backups 50
  Raw Partition Backups 49
  Search Backups 49
  Select Restore Type 49
  Specify Policy and Schedule 48
  Start Backup of Marked Files 48
  Start Restore of Marked Files 49
  True Image Backups 49
administrator
  configuration 97
    Exclude List tab 101
    Include List tab 103
  directed
    backup 2, 5
    restore 4
  directed restores 5
  reference 85
  restore options 93
  true image restore procedure 27
alternate client restore
  See redirected restores
  server-directed 88
alternate path restore
  See redirected restores
  server-directed 88
archive
  policy 65, 75
  schedule 65, 76
  write permissions required 6
archive bit
  cumulative-incremental backup 3
  differential-incremental backup 3
  full backup 2
  parameter 99
archive operations 109

B

backup
  cumulative-incremental 3
  differential-incremental 3
  full 2
  policy 64, 75, 101, 103
  schedule 64, 75, 101, 103
  shared folders 16
  true image 3
backup images
  selecting 61
Backup Marked Files dialog box
  List box 78
Backup Policy and Schedule dialog box 74
  Backups tab 75
Backup, Archive, and Restore window 55
  buttons 55
backups
  performing with the NetBackup Browser 12
  performing with Windows Explorer 11
Backups tab 64, 75
  Archive Policy 65, 75
  Archive Schedule 65, 76
  Backup Policy 64, 75
  Backup Schedule 64, 75
  Cancel 65, 76

Help 65, 76
OK 65, 76
BPBKAR 107
BPCD 107
BPINETD 107
buttons
Backup, Archive, and Restore window 55
NetBackup Restore window 59

C

class
See policy
client
redirected restores 5
Clients tab 68
Add 69
Cancel 70
Client List 69
Help 70
Make Current 69
New Client Name 69
OK 70
Remove 69
Clients/Policy Type tab 68
Add 69
Cancel 70
Client List 69
Help 70
Make Current 69
New Client Name 69
OK 70
Policy Type 70
Remove 69
Use this client list for future backup and restore windows 70
cumulative-incremental backup 3

D

datetime stamp 61, 99
cumulative-incremental 3
debug
general level 105
TCP level 106
verbose level 106
default
redirected restore
Destination Clients tab 96
Add 97
Cancel 97
Client List 97
Help 97
Make Current 97
New Client Name 97
OK 97
dialog box
Backup Policy and Schedule 74
NetBackup Client Job Tracker 81
NetBackup Client Properties 97
Backups tab 64
Exclude List tab 101
General tab 62, 98
Include List tab 103
Network tab 104
Troubleshooting tab 105
Preview List 72
Restore Marked Files 79
Search Backups 77
Specify Backup Options 78
Specify NetBackup Machines and Policy Types 65, 93
Toolbar Options 74
View Status 70
directory
permissions 6
disk image
restore 33

E

Edit menu 44
Mark Displayed Files 44
Preview List of Marked Files 45
Unmark All 45
Unmark Displayed Files 45
escape character, on UNIX 108
exclude list
add from backup menu 48
example on UNIX client 109
syntax rules 107
Exclude List tab 63, 100
Add 101
Cancel 102
Delete List 102
Exclude File 101
Exclude File List 101
Help 102
New List 102
Next 102
OK 102

Policy 101
Previous 102
Remove 101
Schedule 101

F

File menu 42
Close 44
Exit 44
from Archived Backup 42
from Archived Backup as a Proxy 43
from Backup Exec Backup 43
from Normal Backup 42
from Normal Backup as a Proxy 43
from Raw Partition Backup 42
from Raw Partition Backup as a Proxy 43
from True Image Backup 43
from True Image Backup as a Proxy 43
NetBackup Client Properties 43
NetBackup Explorer Extensions 44
Select Files and Folders to Backup 42
Select Files and Folders to Restore 42
Specify NetBackup Machines 43
View Status 44
file permissions 6
files
exclude 101
include 103
mark and unmark 44
restore marked files 49
free browse 85

G

general level debug 105
General tab 62, 98
Allow server-directed restores 99
Cancel 63, 100
Client name 98
Help 63, 100
Keep status of user-directed backups, archives, and restores for 63, 99
List files timeout 98
OK 63, 100
Perform default search 63, 100
Perform incrementals based on archive bit 99
Restore retries 98
Time overlap 99
User-directed operation timeout 99
Glossary. *See* NetBackup Help.

H

Help menu 52
About NetBackup Client 52
Contents 52
How to Use Help 52
Search For Help On 52
VERITAS Web Page 52
History pane
description 59
refresh 47
restore procedure 24
to select backups 22
true-image restore procedure 27

I

include list
add from backup menu 48
syntax rules 107
Include List tab 63, 102
Add 103
Cancel 103
Delete List 103
Help 103
Include File 103
Include File List 103
New List 103
Next 103
OK 103
Policy 103
Previous 103
Remove 103
Schedule 103
incremental backup
archive bit 99
cumulative 3
differential 3

K

keyword phrase
backup procedure 15
restore procedure 17

L

listing backups and archives
permissions 6

M

master server
directed restores 5
menus 41
Actions 47

Edit 44
File 42
Help 52
View 45
Window 51

N

NBWIN 107
NetBackup Backup window 56
panes 57
NetBackup Client Job Tracker dialog box 81
Actual 83
Current Name 83
Current Size 83
End Time 83
Estimated 83
Files 83
Files (estimated) 83
Folders 83
Folders (estimated) 83
Job ID 83
JobType 83
KBytes Data 83
KBytes Data (estimated) 83
KBytes Image 83
KBytes/Sec 83
Next 84
OK 84
Previous 84
Server 83
Start Time 83
Status 83
NetBackup Client Properties dialog box 62, 97
Backups tab 64
Exclude List tab 63, 100
General tab 62, 98
Include List tab 63, 102
Network tab 65, 104
Troubleshooting tab 65, 105
NetBackup Explorer Extensions 11
NetBackup History Pane 60
detailed list 61
opening 60
NetBackup Restore window 58
buttons 59
NetBackup History Pane 60
panes 59
NetBackup window icons 53
Network tab 65, 104
Cancel 105
Help 105
NetBackup Client Service Port 104
NetBackup Request Service Port 104
OK 105

P

Panes
NetBackup Backup window 57
NetBackup History 60
NetBackup Restore window 59
perform incrementals based on archive bit 99
permission
user-directed restore 88
permissions
file 6
policy
archive 65, 75
backup 22, 64, 75, 101, 103
more than one 59
NetBackup History Pane 61
server configuration 69, 95, 97, 98
true-image restore 26
type 70, 95
Preview List dialog box 72
Close 73
Help 73
Name 73
Time Backed Up 73
Time Modified 73
progress report
NetBackup Client Job Checker 82

R

redirected restores
server-directed 5
restore
alternate path 32, 38
files
advanced procedures 22
procedure 16
folder 23
retries 98
true-image folder 26
restore without access-control attributes 87
restores
server directed 93
server directed to another client 5

S

schedule
archive 65, 76
backup 64, 75, 101, 103
backup NetBackup History Pane 61
scheduled
administrator-directed operations 2
backups
exclude file list 101
include file list 103
servers list 67
search
backups, dialog box 77
default search 100
procedure 22
specific backup dates 22
server
configuration 69, 85, 95, 97, 98
server directed restore 4
server-directed restore 5
Servers tab 66
Add 66
Cancel 67
Help 67
Make Current 67
New Server Name 66
OK 67
Remove 67
Server List 67
Source Clients/Policy Type tab 94
Add 95
Cancel 95
Client List 95
Help 95
Make Current 95
New Client Name 95
OK 95
Policy type 95
Use this client list for future backup and restore windows 95
specific backup dates 22
Specify Backup Options dialog box 78
Archive files (delete after successful backup) 78
Back up to NetBackup Server 78
Cancel 79
Help 79
Keyword phrase to associate with the backup 79
List box 78
Start Backup 79
Specify NetBackup Machines and Policy Types dialog box 65, 93
Specify NetBackup Machines dialog box
Clients tab 68
Clients/Policy Type tab 68
Destination Clients tab 96
Servers tab 66
Source Clients/Policy Type tab 94
status of NetBackup operation
how to view 21
syntax rules 107

T

TAR 107
TCP level debug 106
time overlap 99
timeout
period 98
toolbar
window 9
Toolbar Options dialog box 74
Cancel 74
Flat Toolbars 74
Large Buttons 74
OK 74
Show tool tips 74
Show toolbar 74
troubleshooting logs 106
BPBKAR 107
BPCD 107
BPINETD 107
NBWIN 107
TAR 107
Troubleshooting tab 65, 105
Cancel 106
Database 106
Flush 106
General 105
Help 106
OK 106
TCP 106
Verbose 106
true-image restore
description 5
folders displayed 59
procedure 26
window

opening 43
updating 49

U

user-directed operation
backup 12
restore 16
status 21
true-image backup 5

V

verbose level debug 106
View menu 45
Description Bars 46
NetBackup History Split 47
Refresh NetBackup History 47
Save Settings on Exit 47
Show All Backups 47
Show Most Recent Backup 47
Show NetBackup History as a Timeline 47
Split 47
Status Bar 46
Toolbar Options 47
View Status dialog box 70
Close 71
Delete 71
Help 71
Operation Status 71
Operation Type 71
Operations List 71
Print 71
Progress 72
Refresh 71
Refresh Rate (seconds) 71
Time Requested 71
Verbose 71
Volume Snapshot Provider 2

W

wildcard characters
escaping on UNIX 108
in UNIX exclude lists 107
window
restore
does not display backed up files or folders 16
restore (true-image) 49
open from actions menu 43
save settings 47
toolbar 9
unmarking files and folders 10
Window menu 51
Arrange Icons 51
Cascade 51
Close All 51
Tile Horizontally 51
Tile Vertically 51
Windows 2000
archive operations 109
Windows Explorer, performing backups with 11
Windows XP
archive operations 109